TOSHIBA

OWNER'S MANUAL

Projection Television

COLOR STREAM™

Owner's Record

The model number and serial number are on the back of your TV. Record these numbers in the spaces below. Refer to these numbers whenever you communicate with your Toshiba dealer about this TV.

Model number: _____

Serial number: _____

50A11

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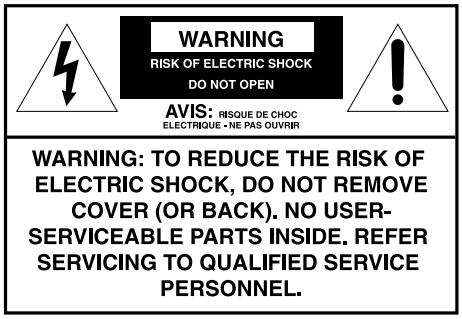
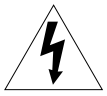
Important Information

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.


WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN
AVIS: RISQUE DE CHOC
ELECTRIQUE - NE PAS OUVRIR
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning symbol in the triangle tells you that the voltage inside this product may be strong enough to cause an electric shock. DO NOT TRY TO SERVICE THIS PRODUCT YOURSELF.

The exclamation mark in the triangle tells you that important operating and maintenance instructions follow this symbol.

CAUTION

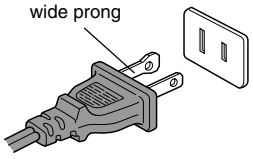
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE PRONGS CAN BE FULLY INSERTED INTO THE OUTLET TO PREVENT ANY EXPOSURE OF THE PRONGS ON THE POLARIZED PLUG.

ATTENTION

POUR PRÉVENIR LES CHOCS ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉS À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

CAUTION

The plug has one prong wider than the other and will fit only one way into a standard electrical outlet (120 volt AC, 60 Hz). If the plug does not fit into the outlet, try turning it around. If the plug still does not fit, the outlet is probably non-standard and must be replaced by a qualified electrician. Do not tamper with the plug or try to force it into a non-standard outlet.



Note to CATV system installers in the USA

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC, which provides guidelines for proper grounding, and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Precautions

Installing your TV

- Place the TV on the floor or on a sturdy platform. The mounting surface should be flat and steady. If you install the TV on a soft floor, make sure that the floor is not damaged by the weight of the TV.
- Place the TV far enough away from the walls to allow proper ventilation. This will prevent the TV from overheating and avoid possible damage to the TV. Avoid dusty places too.
- Damage may occur if you leave the TV in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity, and temperatures of 41˚F(5˚C) or lower.

Using your TV

- Do not stand or climb on the TV.
- Do not put any heavy object on top of the TV.
- Do not place containers with liquids such as drinks or cosmetics on the TV. If any foreign material or water leaks into the TV, unplug the AC cord and contact your dealer.
- If the room temperature suddenly rises, condensation may occur on the lenses resulting in picture distortion or color fading. In such a case, simply wait a while (with the power on) and the condensation will evaporate.
- Avoid displaying stationary images on your TV screen for extended periods of time. Stationary patterns generated by a picture-in-picture (PIP) display, Multi-Window display, computer displays, video games, stock market reports, etc., can become permanently engrained on the picture tube. This damage is not protected by your warranty because it is the result of misuse. If you wish to use your TV to display still images, reduce brightness and contrast settings. Never leave a PIP, Multi-Window, computer, or video game display unattended.
- Sit approximately 10-25 feet away from the TV. Sitting too far to the left or right of the screen will cause the picture to appear dull as will direct sunlight and room lights. Turn the TV off to check for reflections on the screen. Then remove the source of any reflections while viewing.

Cleaning your TV

- Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine which might damage the finish of the cabinet. If the cabinet is very dirty, use a damp cloth to wipe the cabinet clean, then finish with a dry cloth.

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Introduction

Welcome to Toshiba

Congratulations! You have purchased one of the finest projection TVs on the market. The goal of this manual is to guide you through setting up and operating your Toshiba TV as quickly as possible.

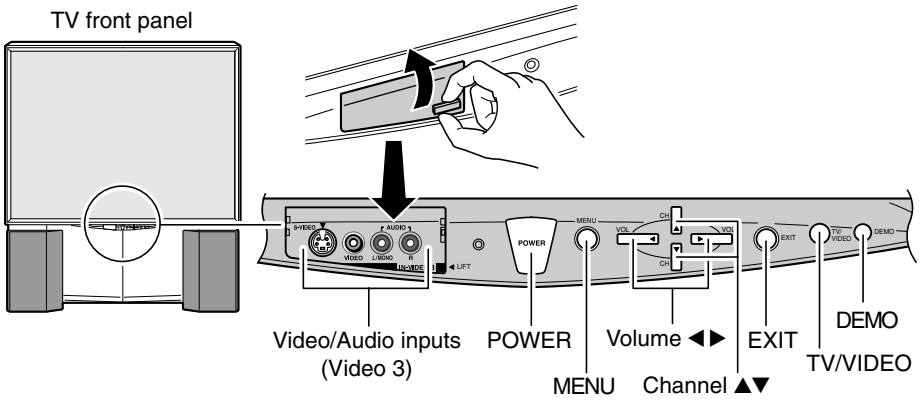
Instructions in this manual are based on using the remote control. You can also use the controls on the TV if they have the same name as those on the remote control.

Please read all the safety and operating instructions carefully, and keep the manual for future reference.

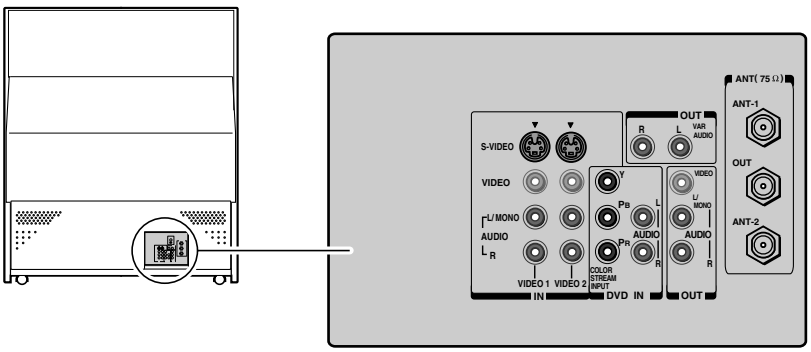
Exploring your new TV

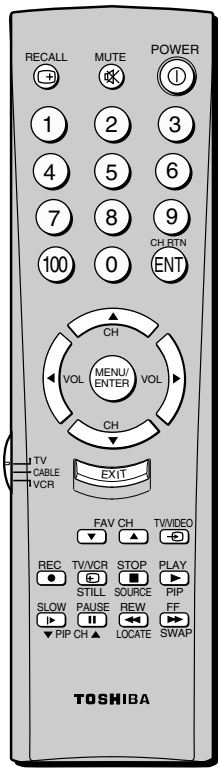
You can operate the TV using the buttons on the remote control or TV front panel. The back panel and front panel (behind the door) provide all the terminal inputs for connecting other equipment to the TV.

TV front panel



TV rear panel

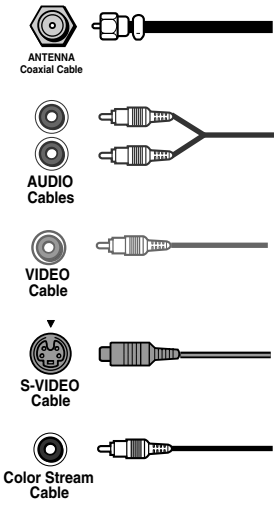




Connecting your TV

If you have not connected electronic equipment before, or you have been frustrated in the past, you may wish to read this section. (Cables are not supplied.)

- A coaxial cable is the standard cable that comes in from an antenna or cable converter box. Coaxial cables use "F" connectors.
- Audio and video cables are usually color-coded according to use: yellow for video, and red and white for audio. The red audio cable is for the stereo right channel, and the white audio cable is for the stereo (or mono) left channel. On the rear panel of the TV, the terminals are color-coded in the same manner as the cables.
- S-video cables provide better picture performance than regular video cables. S-video cables can only be used with S-video compatible components.
- ColorStream™ (component video) cables come in sets of three, and provide the best picture performance. ColorStream cables can only be used with ColorStream compatible components.



Caution:

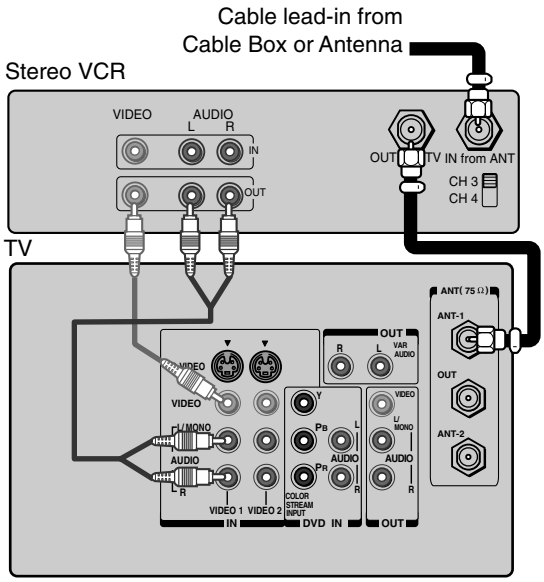
Do not plug the TV in until you have finished connecting all of your equipment.

Connecting a VCR

This connection allows you to watch local channels and video programs, play or record on the VCR while watching TV, and record from one channel while watching another channel.

You will need:

- one coaxial cable
- one pair of audio cables (one single audio cable for a mono VCR)
- one video cable



Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have an S-VHS VCR, use an S-video cable instead of a regular video cable.

Do not connect a regular video cable and an S-video cable to Video-1 (or Video-2) at the same time.

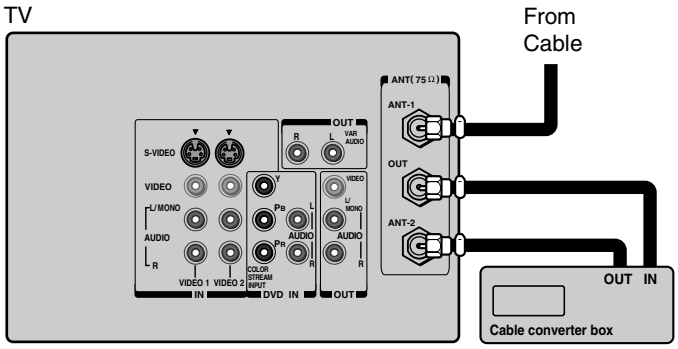
Connecting a cable converter box

This connection allows you to watch basic and premium channels.

To use the TV's features, select ANT-1. To view premium channels, select ANT-2, tune the TV to channel 3 or 4 (whichever is vacant in your area), and use the converter box to change channels.

You will need:

- one coaxial cable



Note:

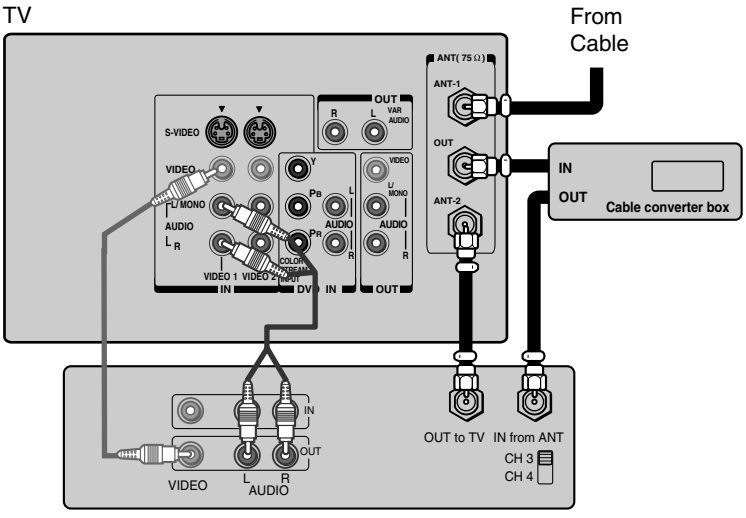
When using a converter box with the TV, some features may not be available using the remote control, such as programming favorite channels, labeling channels, and blocking channels.

Connecting a cable converter box and a VCR

This connection allows you to watch and record basic and premium cable channels, watch videotapes, and record one channel while watching another. To use the TV's features, select ANT-1. To view premium channels or record with the VCR, select ANT-2, tune the TV to channel 3 or 4 (whichever is vacant in your area), and use the cable converter box to change channels.

You will need:

- two coaxial cables
- one pair of audio cables (one single audio cable for a mono VCR)
- one video cable



Caution:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have an S-VHS VCR, use the S-video cable instead of a regular video cable.

Do not connect a regualar video cable and an S-video cable to Video-1 (or Video-2) at the same time.

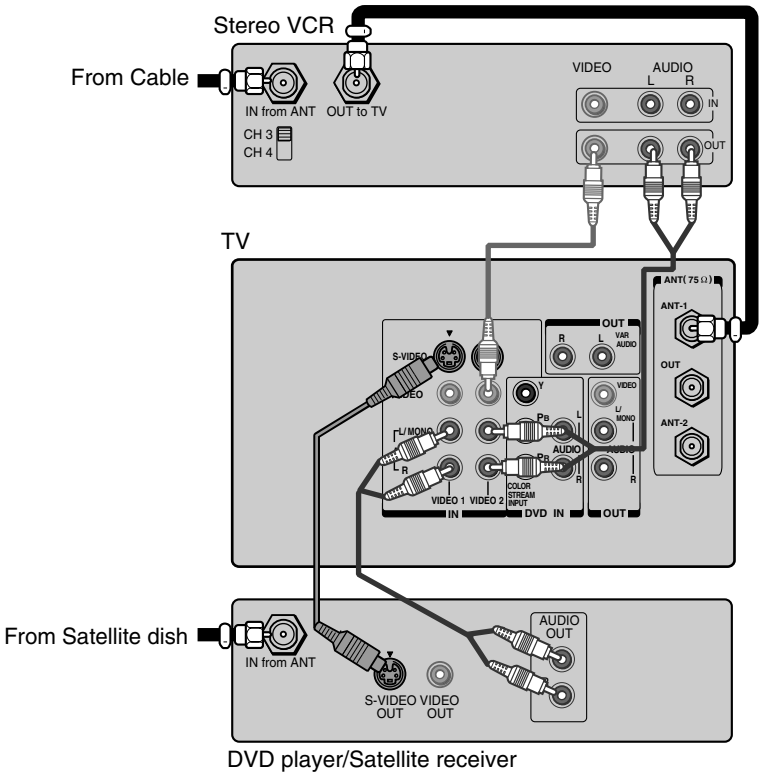
When using a converter box with the TV, some features may not be available using the remote control, such as programming favorite channels, labeling channels, and blocking channels.

Connecting a DVD player or satellite receiver and a VCR

This connection allows you to watch DVD (or satellite), VCR, and TV programs. You can record one TV channel while watching another channel.

You will need:

- one coaxial cable
- two pairs of audio cables (one single and one pair of audio cables for a mono VCR)
- one video cable (between the TV and VCR)
- one S-video cable (between the TV and DVD player/satellite receiver)



Note:

If your DVD player or satellite receiver does not have component video connections but does have an S-video connection, use an S-video cable instead of a regular video cable for better picture quality. If your DVD player or satellite receiver has component video connections, see page 8.

Do not connect a regular video cable and an S-video cable to Video-1 (or Video-2) at the same time.

Do not connect the DVD player/satellite receiver and the VCR to the same video channel on the TV.

Caution:

The unauthorized recording of television programs, video tapes and other materials may infringe upon the provisions of copyright laws.

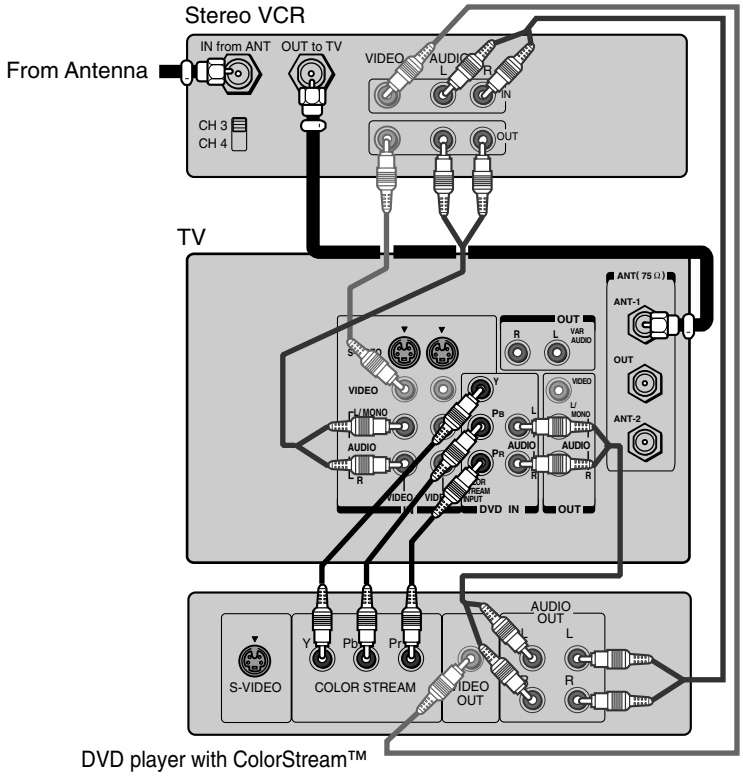
Connecting a DVD player with ColorStream™ (component video) and a VCR

This connection allows you to watch DVD, VCR, or TV programs, and record DVD or TV programs. You can record from one source while watching a program from another source.

The TV has ColorStream (component video) connections. Connecting the TV to a DVD player with component video connections (such as a Toshiba DVD player with ColorStream™), can greatly enhance picture quality and performance.

You will need:

- one coaxial cable
- three pairs of audio cables (two single and one pair of audio cables for a mono VCR)
- two video cables
- one set of ColorStream (component video) cables



DVD player with ColorStream™ (component video)

Note:

If your DVD player does not have component video connections, use an S-video cable (if possible) instead of a regular video cable for better picture quality.

To record from the DVD player, set the VCR to Line IN. To monitor recording from the DVD player, set the VCR to Line IN, and the TV to Video-1.

Caution:

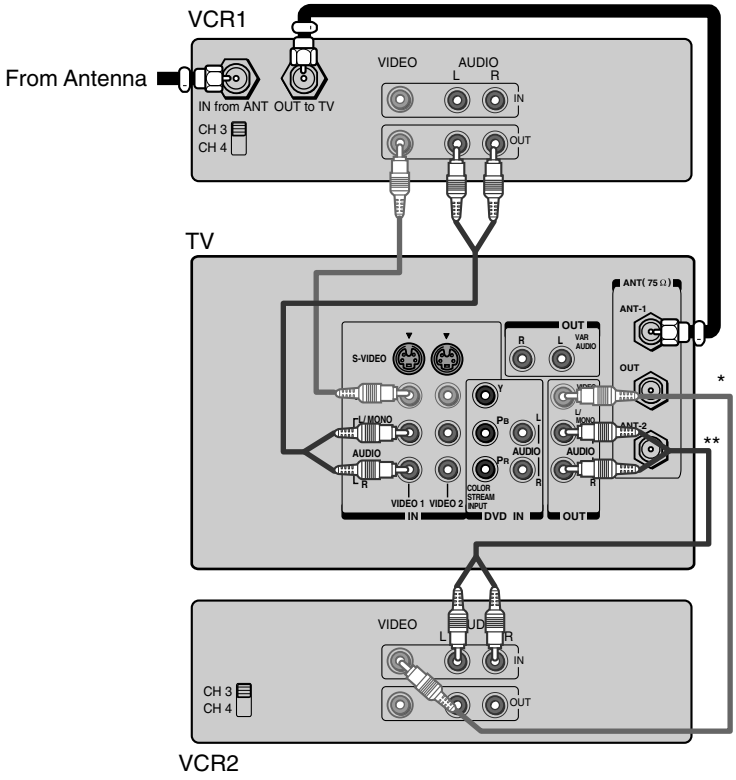
The unauthorized recording of television programs, video tapes and other materials may infringe upon the provisions of copyright laws.

Connecting two VCRs

This connection allows you to record (dub/edit) from one VCR to another VCR while watching a videotape. You can also record from one TV channel while watching another channel.

You will need:

- one coaxial cable
- two pairs of audio cables (two single audio cables for mono VCRs)
- two video cables



Note:

To dub or edit, VCR 2 must select Line IN, and the TV must select Video-1.

Do not connect the same VCR to the output and input jacks on the TV at the same time.

If you have S-VHS VCRs, use S-video cables instead of regular video cables for better picture quality. Do not connect a regular video cable and an S-video cable to Video-1 (or Video-2) at the same time.

Caution:

The unauthorized recording of television programs, videotapes, and other materials may infringe upon the provisions of copyright laws.

* *The Video OUT jack does not output the PIP picture.*

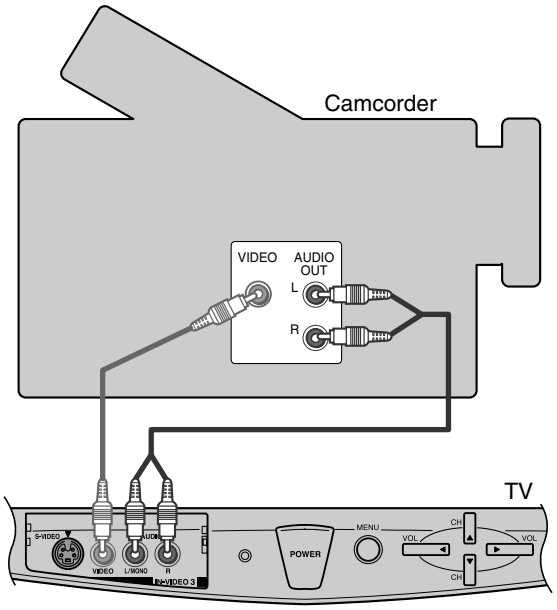
** *The Audio OUT jacks can output the sound of either the main or PIP picture (see "Selecting the Audio OUT sound" on page 41.)*

Connecting a camcorder

This connection allows you to watch video materials recorded on a camcorder.

You will need:

- one pair of audio cables
- one video cable



Note:

If you have an S-VHS camcorder, use an S-video cable instead of a regular video cable for better picture quality.

Do not connect a regular video cable and an S-video cable to Video-3 at the same time.

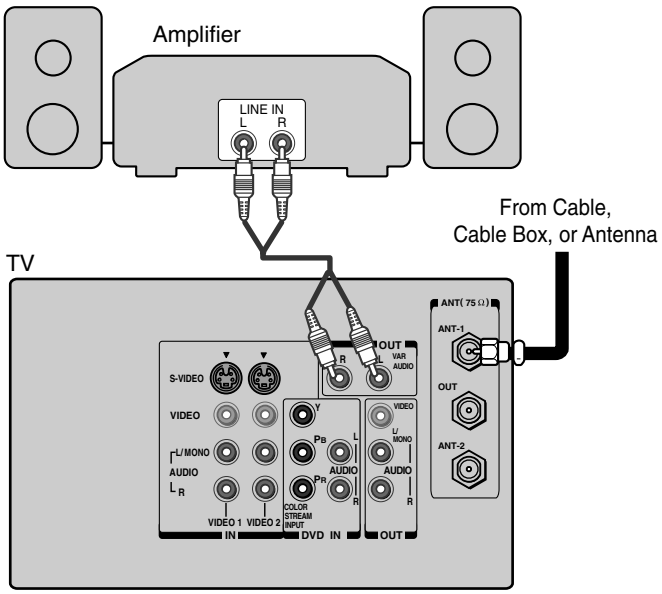
Connecting an audio system

This connection allows you to use an audio amplifier to adjust the audio level, and to use external speakers.

To control the audio, turn on the TV and the stereo amplifier, and then turn off the built-in speakers. (See“ Turning off the built-in speakers” on page 40.)

You will need:

- one pair of audio cables



Note:

When using an external audio amplifier, the volume of both the TV and the amplifier must be set above 0 or no sound will be output.

Using the remote control

Preparing the remote control for use

You can use the TV remote control to operate the TV, most VCR models, and most cable TV converters together, even if they are different brands. If you have a Toshiba VCR or cable TV converter, the TV remote control is already programmed and ready to use. If you have a non-Toshiba VCR or converter, you must first program the remote control (see "Programming the remote control for use with a non-Toshiba VCR or a cable TV converter" on page 12.)

Note:

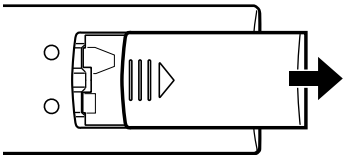
The TV remote control may not operate your VCR or cable TV converter.

Refer to the owner's manual for your other device to see which features are available. In addition, the remote control for your other device may have features not available on the TV's remote control. If you would like to continue to use these features, you may want to use the original remote control.

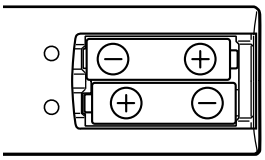
Installing the remote control batteries

To install the batteries:

1. Slide the battery cover off of the back of the remote control.



2. Install two "AA" size batteries. Match the + and – signs on the batteries to the signs on the battery compartment.



3. Slide the battery cover back on to the remote control until the lock snaps.

Caution:

- *Dispose of batteries in a designated disposal area. Do not throw batteries into a fire.*
- *Do not mix battery types or combine used batteries with new ones.*
- *Remove dead batteries immediately to prevent battery acid from leaking into the battery compartment.*
- *If you do not intend to use the remote control for a long time, remove the batteries.*

Using the remote control with a Toshiba VCR or cable TV converter

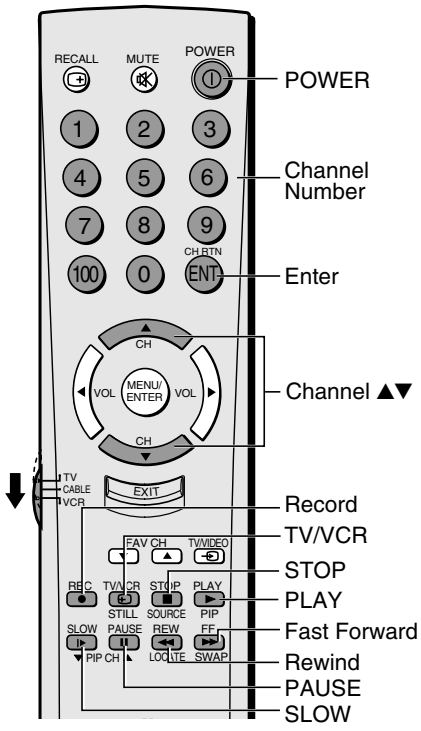
To control a Toshiba VCR:

Set the TV/CABLE/VCR switch to the VCR position. The shaded buttons in the illustration at right will then control the VCR. The other buttons will operate the TV as usual.

To control a Toshiba cable TV converter:

Set the TV/CABLE/VCR switch to the CABLE position. The shaded buttons in the top of the illustration at right will then control the cable TV converter. The other buttons will operate the TV as usual.

If you own a non-Toshiba VCR or cable TV converter and want to use the TV remote control to operate it, see "Programming the remote control for use with a non-Toshiba VCR or cable TV converter" on page 12.



Programming the remote control for use with a non-Toshiba VCR or cable TV converter

The TV remote control is preprogrammed to operate Toshiba VCRs and cable TV converters (see page 11). To use the remote control to operate a non-Toshiba VCR or cable converter:

1. Refer to the VCR and cable TV converter code tables on pages 13 and 14 to find the corresponding code for your VCR or cable TV converter.

   If more than one code is listed, try each one separately until you find the one that works.
2. If you are programming the remote control to operate your:
   - **VCR**, set the TV/CABLE/VCR switch on the remote control to VCR.
   - **Cable converter,** set the TV/CABLE/VCR switch on the remote control to CABLE.
3. While holding down RECALL, press the Number buttons (0–9) to enter the three-digit code for your brand of VCR or converter.
4. Point the remote control at the VCR or converter and press POWER to test the code.

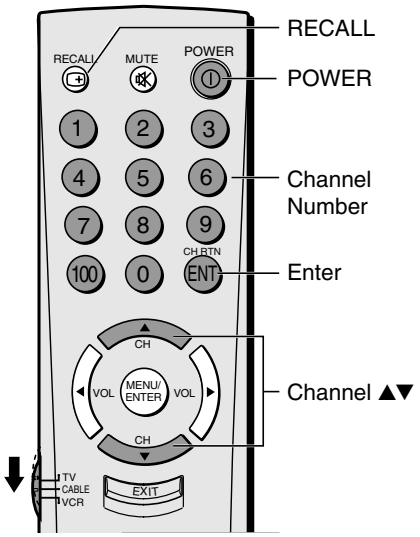
   If the VCR or converter responds, you have entered the right code.

   If the VCR or converter does not respond, you may have entered the wrong code. Repeat steps 1–4 using another code.
5. Reset the TV/CABLE/VCR switch to TV to control the TV.

For future reference, write down the codes you used:

VCR code: _____

Cable TV converter code: _____



Note:

- *Each time you replace the batteries, you must reprogram the remote control.*
- *Some newer VCRs are capable of working on either of two remote codes. These VCRs have a switch labeled "VCR1/VCR2." If your VCR has this kind of switch and does not respond to any of the codes for your VCR brand, set the switch to the other position (VCR1 or VCR2) and reprogram the remote control.*

VCR code table

Brand name	Code number
Adventura	019
Aiko	297
Aiwa	019
Akai	060, 068, 080, 125, 261
American High	054
Asha	259
Audiovox	056
Beaumark	259
Bell & Hawell	123
Brandt	206
Broksonic	140, 203, 230, 314, 380
Calix	056
Canon	054
Capeheart	039
Carver	100
CCE	091, 297
Citizen	056, 297
Colt	091
Craig	056, 066, 091, 259
Curtis Mathes	054, 060, 079
Cybernex	259
Daewoo	039, 064, 297
Daytron	039
Dynatech	019
Electrohome	056
Electrophonic	056
Emerex	051
Emerson	019, 021, 056, 062, 080, 087, 140, 203, 227, 228, 230, 231, 297, 313, 314, 380, 498
Fisher	066, 073, 085, 123
Fuji	052, 054
Fnai	019, 344
Garrard	019, 344
GE	054, 079, 084, 221
GoldStar	037, 056, 057
Gradiente	019
Harley Davidson	019
Harman/Kardon	057, 094
Harwood	087, 091
Headquarter	065
HI-Q	066
Hitachi	060, 061, 084, 124, 185, 254
Jensen	060
JVC	027, 060, 086
Kenwood	057, 060, 086
KLH	091
Kodak	054, 056
Lloyd	019
Lloyd's	227
logik	091
LXI	056
Magnavox	054, 058, 100, 129, 168
Magnin	259
Marantz	054, 100
Marta	056
Matsushita	054
MEI	054
Memorex	019, 054, 056, 058, 065, 066, 067, 123, 259
MGA	062, 080
MGN Technology	259
Minolta	061, 124
Mitsubishi	062, 080, 086, 094, 192, 233, 261
Motorola	054, 067
MTC	019, 259
Multitech	019, 091
NAD	077
NEC	057, 059, 060, 069, 086
Nikko	056
Noblex	259
Olympus	054
Optimus	056, 067, 077, 123
Optonica	081
Orion	498
Panasonic	054, 096, 181, 244, 473
Penney	054, 056, 057, 059, 061, 073, 259
Pentax	061, 084, 124
Philco	054
Philips	054, 081, 100, 129
Pilot	056
Pioneer	077, 086
Portland	039
Protec	091
Pulsar	058
Quarter	065
Quartz	065
Quasar	054, 096
Radio Shack	019, 056, 344
Radix	056
Randex	056
RCA	061, 079, 084, 096, 124, 125, 168, 221
Realistic	019, 054, 056, 065, 066, 067, 081, 085, 123, 259
Ricoh	053
Runco	058
Samsung	064, 259
Sanky	058, 067
Sansui	060, 086
Sanyo	065, 066, 123, 259
Scott	062, 064, 140, 203, 229, 230, 231
Sears	054, 056, 061, 065, 066, 073, 085, 123, 124
Sharp	067, 081
Shintom	091
Shogun	259
Singer	091
Sony	051, 052, 053, 054
STS	061
Sylvania	019, 054, 062, 100, 129
Symphonic	019, 344
Tatung	060
Teac	019, 060
Technics	054, 181
Teknika	019, 054, 056, 071
Telefunken	206
TMK	227, 259
Toshiba	062, 064, 085, 229 231, 385
Totevision	056, 259
Unitech	259
Vector	064
Vector Research	057, 059
Video Concepts	059, 064, 080
Videosonic	259
Wards	019, 054, 061, 066, 067, 081, 091, 168, 231, 259
XR-1000	019, 054, 091
Yamaha	057
Zenith	052, 053, 058

Cable TV converter code table

Brand name	Code number
ABC	020, 022, 026, 027, 030, 032, 033, 036, 066
Antronix	041
Archer	041, 058, 172
Belcor	075
Cable Star	075
Cabletenna	041
Cableview	041
Century	172
Citizen	172
Color Voice	044, 050
Comtronics	059, 079
Contec	038
Dae Ryung	027
Eastern	021
Focus	419
Garrard	172
GC Electronics	075
Gemini	034, 089
General Instrument	030, 295
GoldStar	059, 163
Hamlin	028, 039, 053, 278, 292
Hitachi	030
Hytex	026
Jasco	172
Jerrold	022, 030, 031, 033, 034, 066, 295
Macom	052
Magnavox	046
Memorex	019
Movie Time	175
NSC	089, 175
Oak	026, 038, 267
Panasonic	019, 040, 126
Paragon	019
Philips	044, 046, 047, 048, 049, 050, 172
Pioneer	042, 163, 552
Popular Mechanics	419
Pulsar	019
RCA	040
Recoton	419
Regal	039, 278, 292
Regency	021
Rembrandt	030, 089
Runco	019
Samsung	059, 163
Scientific Atlanta	025, 027, 036, 296
Signal	034, 059
Signature	030
SL Marx	059
Sprucer	040
Standard Components	174
Starcom	022, 034, 066
Stargate	034, 059
Starquest	034
Sylvania	020
Teleview	059
Texscan	020
Tocom	031, 032, 078
Toshiba	019
Tusa	034
Unika	041, 172
United Artists	026
United Cable	022
Universal	041, 058, 075, 172
Viewstar	046, 079, 230
Zenith	019
Zentek	419

Learning about the remote control

POWER turns the TV on and off (pages 12, 36)

TV/VIDEO selects the video input source (page 34)

CH ▲ and ▼ cycle through programmed channels (page 19)

TV/CABLE/VCR switches between TV, Cable, and VCR (pages 11, 12)

Channel Numbers allow direct access to channels (page 19)

VOL ▲ and ▼ adjust the volume level

CH RTN returns to the last viewed channel (page 21)

ENT required by some VCRs and Cable TV converters to change the channel

MENU accesses programming menus (page 16)

ENTER sets programmed menu information (page 16)

▲▼◄► selects or adjusts programming menus (page 16)

FAV CH ▼ and ▲ cycle through the channels that are programmed as favorite channels (page 21)

EXIT exits programming menus (page 16)

PIP Buttons access PIP functions (pages 24–25)

- **PIP** turns the PIP on and off
- **SOURCE** selects the PIP input source
- **STILL** freezes the PIP
- **SWAP** switches the main and PIP pictures
- **LOCATE** changes the position of the PIP window
- **PIP CH ▼ and ▲** cycle through the PIP channels

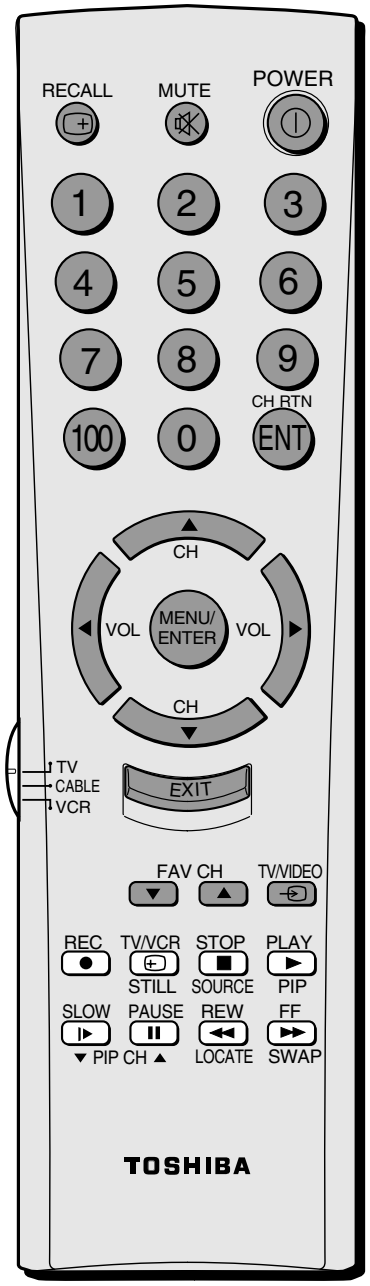
VCR Buttons access VCR functions (in VCR mode only; see page 11)

- **PLAY** plays a videotape
- **STOP** stops a videotape
- **TV/VCR** toggles between TV and VCR when viewing while recording
- **REC** starts recording a videotape
- **FF** fast-forwards a videotape
- **REW** rewinds a videotape
- **PAUSE** freezes a videotape during playback or recording
- **SLOW** plays a videotape in slow motion

MUTE turns off the sound (page 37)

RECALL displays on-screen information (page 42)

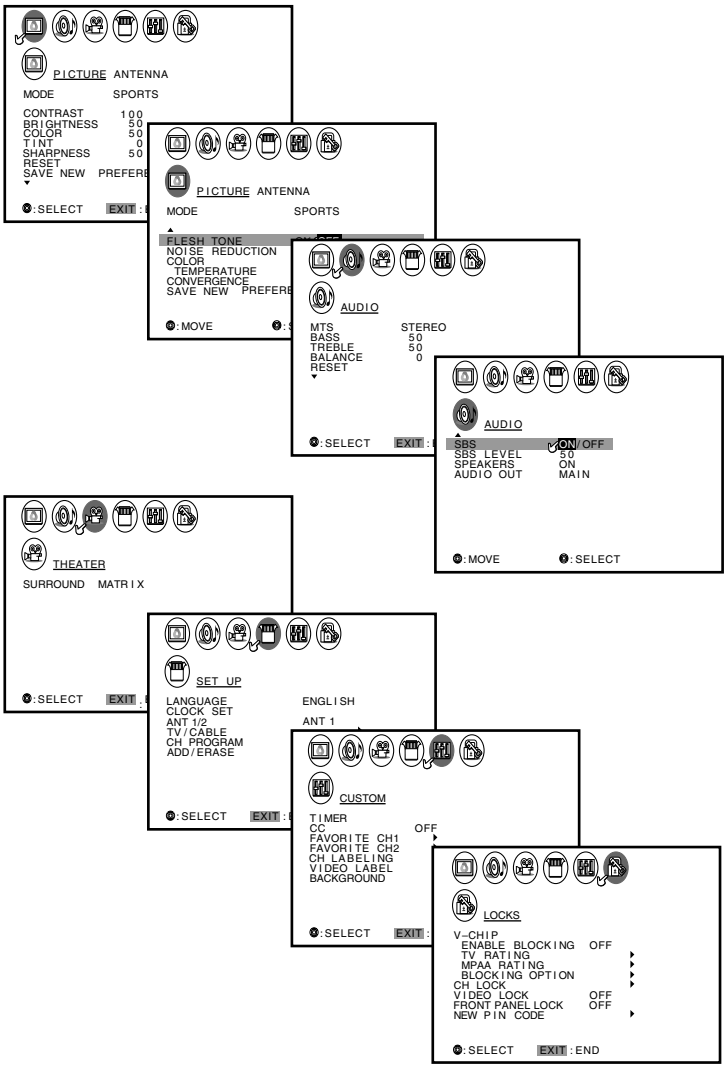
The shaded buttons in the illustration below glow in the dark.



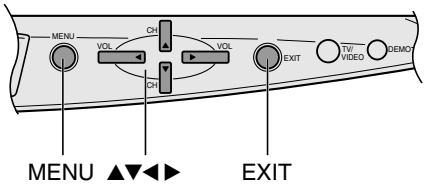
Setting up your TV

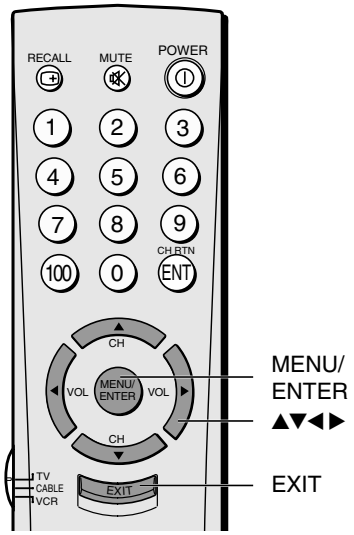
After you have installed the batteries and programmed the remote control, you need to set some preferences on the TV using the menu system. You can access the menus using the buttons on the TV front panel or remote control.

1. Press MENU to display the menu system.
2. Press ◀ or ▶ to select a menu.
3. Press ▲ or ▼ select an item.
4. Press ◀ or ▶ to select or adjust a setting.



- The main menus close automatically if a selection is not made within 15 seconds; the other menus close within 6 seconds (except the convergence, clock set, and timer menus, which remain open until a button is pressed.)
- To close a menu instantly, press EXIT.





Note:

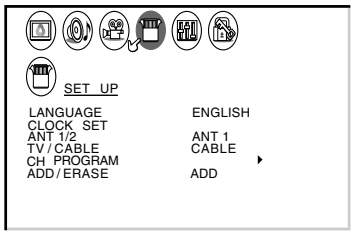
- *To change the menu background, see page 42.*

Changing the on-screen display language

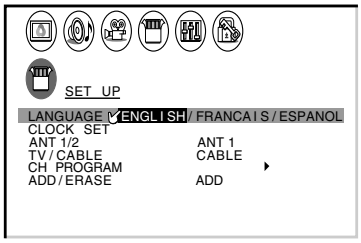
Choose from three different languages (English, French and Spanish) for the on-screen display of adjustment menus and messages.

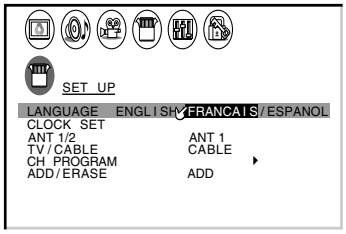
To select a language:

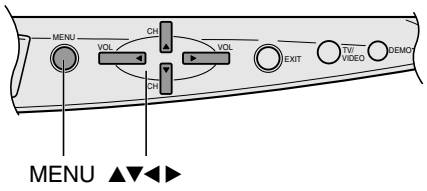
1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.



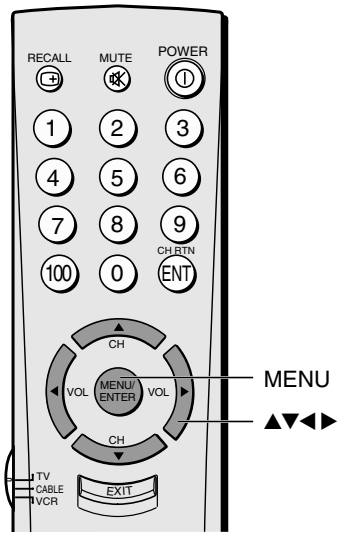
2. Press ▲ or ▼ to highlight LANGUAGE.
3. Press ◀ or ▶ to highlight your desired language.







MENU ▲▼◀▶



MENU

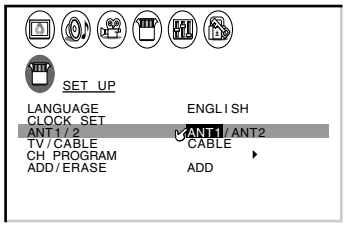
▲▼◀▶

Selecting the antenna input

You can connect to two different signal sources by choosing the antenna input (ANT 1 or ANT 2).

To select the antenna input using the menu system:

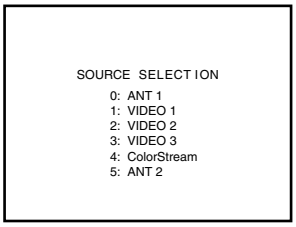
1. Press MENU, and then press ◀ or ▶ to highlight the SET UP menu.
2. Press ▲ or ▼ to highlight ANT 1/2.



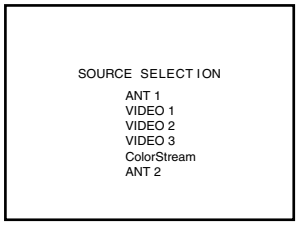
3. Press ◀ or ▶ to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use.

To select the antenna input using the TV/VIDEO button:

Press TV/VIDEO on the remote control or TV (see illustrations below) to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use. The current signal source displays in purple.



Pressing TV/VIDEO on the remote control displays this screen. To select, press 0–5.



Pressing TV/VIDEO on the TV displays this screen. To select, press TV/VIDEO.

Adding channels to the TV's memory

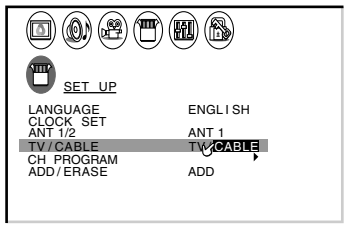
When you press Channel ▲ or ▼, the TV will stop only on the channels that are stored in the TV's channel memory. Follow the steps below and on the next page to program channels into the TV's memory.

Programming channels automatically

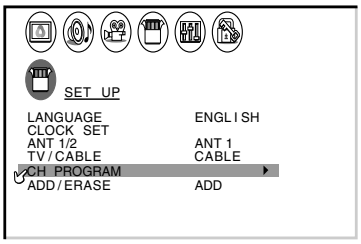
The TV can automatically detect all active channels and store them in its memory. After the TV has stored the channels in its memory, you can manually erase channels or add your favorite channels (see page 19).

To program channels automatically:

1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ until TV/CABLE is highlighted.
3. Press ◀ or ▶ to highlight either TV or CABLE, depending on which you use. If you use an antenna, choose TV; if you use cable, choose CABLE.

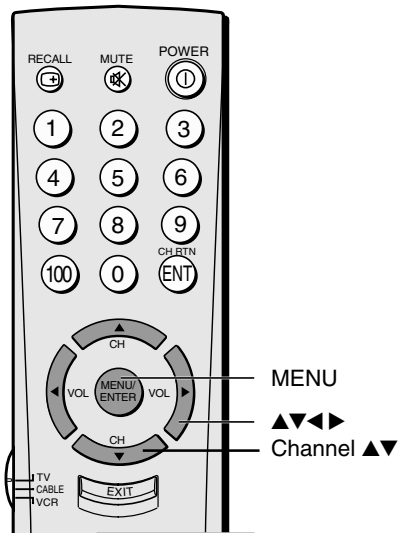


4. Press ▼ to select CH PROGRAM.



5. Press ◀ or ▶ to start channel programming. The TV will automatically cycle through all the TV or Cable channels (depending on which you selected), and store all active channels in the channel memory.

   While the TV is cycling through the channels, the message "Programming Now—Please Wait" appears.
6. When channel programming is complete, the message "Completed" appears.
7. Press Channel ▲ or ▼ to view the programmed channels.

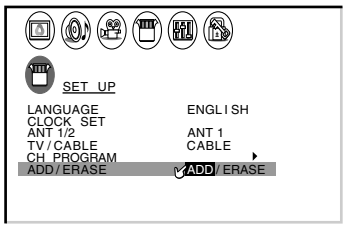


Adding and erasing channels manually

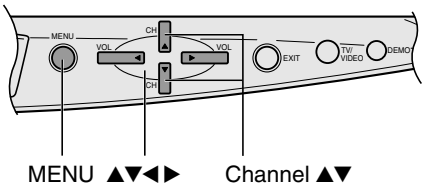
After you have programmed the channels automatically, you can manually add or erase specific channels.

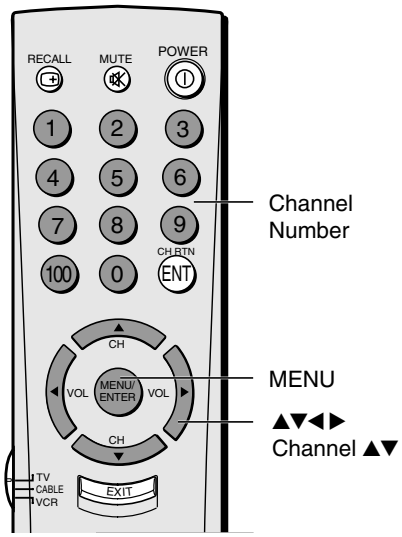
To add or erase channels:

1. Select the channel you want to add or erase. If you are adding a channel, select the channel using the Channel Number buttons.
2. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
3. Press ▲ or ▼ to highlight ADD/ERASE.



4. Press ◀ or ▶ to select ADD or ERASE, whichever function you want to perform.
5. Repeat steps 1–4 for other channels you want to add or erase.





Changing channels

To change to the next programmed channel:

Press Channel ▲ or ▼ on the TV or remote control.

To change to a specific channel (programmed or unprogrammed):

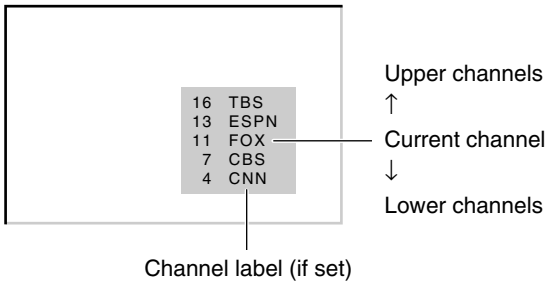
Press the Channel Number buttons (0–9 and 100).

For channels 100 and higher, press 100 and the next two numbers. For example, to select channel 100, press 100, 0, 0. To select channel 125, press 100, 2, 5.

Channel surf

To change to a specific programmed channel (channel surf):

While no menu is on-screen, press and hold Channel ▲ or ▼ for about one second. The TV will enter the channel surf mode.



Repeatedly press or hold Channel ▲ or ▼ while the channel surf mode is on-screen to scroll the channel list. Release the button to display the highlighted channel.

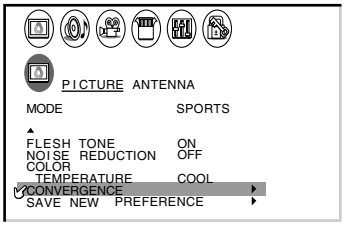
Adjusting the color convergence

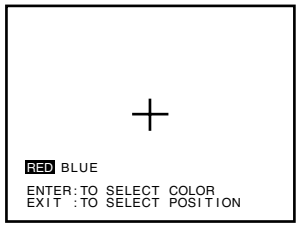
This projection TV uses three separate TV tubes: red, green, and blue. The red, green, and blue images are projected onto the screen where they converge to form a full-color picture. You can see a clear picture only when the three images converge correctly. Convergence may drift over time or if the TV is moved. If you can see clear images on the screen, skip this procedure.

Make this adjustment after the TV has been on for at least 30 minutes.

To check and adjust the color convergence:

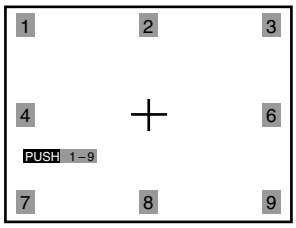
1. Press MENU, then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight CONVERGENCE (see illustration below left).
3. Press ◀ or ▶ to display the center CONVERGENCE menu (see illustration below right).

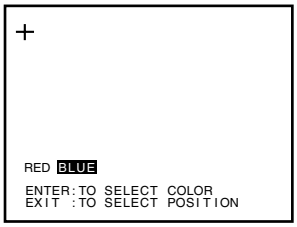




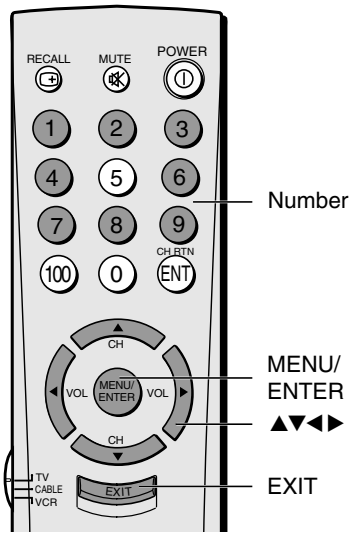
If you see separate red, blue, or green crossed lines (or red or blue shadows next to white lines), you need to adjust the convergence.

4. Press ENTER to highlight RED or BLUE, depending on which color needs adjusting. If both red and blue need adjusting, perform steps 4 and 5 twice.
5. Press ▲ (up), ▼ (down), ◀ (left), or ▶ (right) on the remote control to converge the red or blue line into the green line, which will turn completely white when correctly adjusted. When color convergence is correctly adjusted, you will see two single white lines.
6. Press EXIT to close the center CONVERGENCE menu and open the circumference CONVERGENCE menu (see illustration below left).
7. Press the corresponding Number button (1–4 and 6–9) to select the area to adjust.
8. Press ENTER to highlight RED or BLUE (see illustration below right), depending on which color needs adjusting. If both red and blue need adjusting in the selected area, perform steps 8 and 9 twice.





9. Press ▲▼◀▶ to converge the red or blue line into the green line, which will turn completely white when correctly adjusted. Repeat steps 8 and 9 until you see two single crossed white lines.
10. Press EXIT once to select another area to adjust, and then repeat steps 7–9.
11. Press EXIT twice to close the CONVERGENCE menu.



Using the TV's features

Adjusting the channel settings

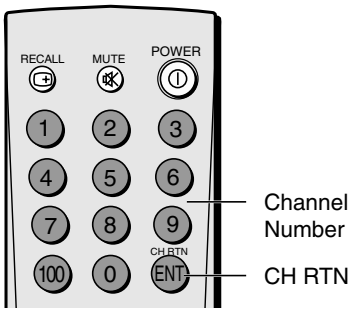
Switching between two channels

You can switch between two channels without entering an actual channel number each time.

To switch between two channels:

1. Select the first channel you want to view.
2. Select a second channel using the Channel Number buttons (0–9 and 100).
3. Press CH RTN. The previous channel will be displayed.

Each time you press CH RTN, the TV will switch back and forth between the two channels.



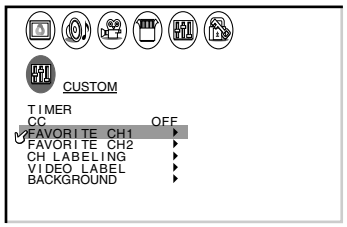
Programming your favorite channels

You can preset up to 9 of your favorite channels each for FAVORITE CH1 and FAVORITE CH2 modes using the Favorite Channel Programming feature. Because this feature scans through only your favorite channels, it allows you to skip other channels you do not normally watch.

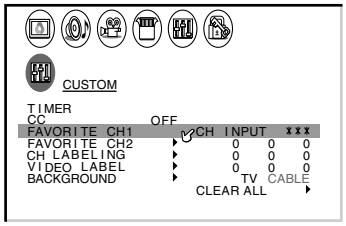
You can still use Channel ▲▼ to scan through all the channels you programmed in the TV's memory.

To program your favorite channels:

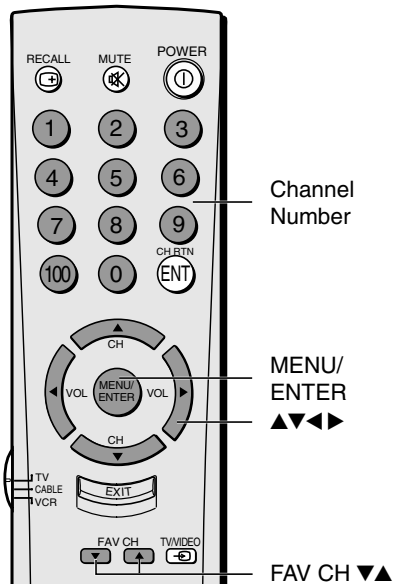
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight FAVORITE CH1, for example.



3. Press ◀ or ▶ to display the FAVORITE CH1 menu. CH INPUT will be highlighted.



4. Press the Channel Number buttons to enter a favorite channel number.
5. Press ENTER.
6. Repeat steps 4 and 5 for other channels.



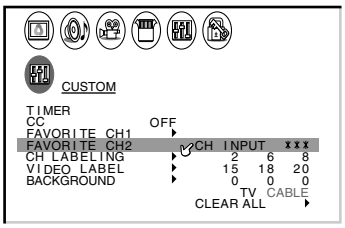
To select your favorite channels:

Press FAV CH ▼ or ▲ . The FAV CH z y buttons will not operate until you have programmed your favorite channels.

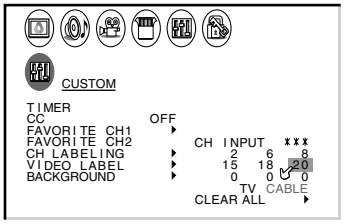
(Continued on next page)

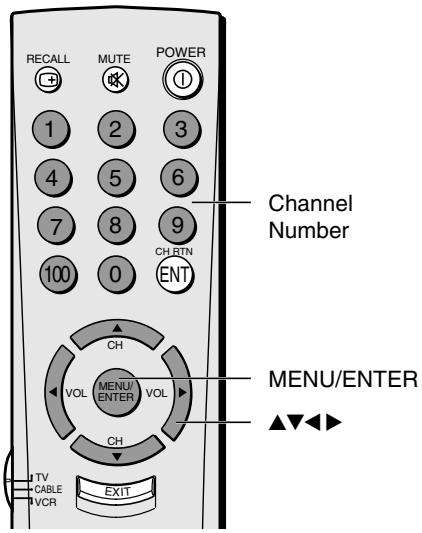
To clear a favorite channel:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight FAVORITE CH2, for example.
3. Press ◀ or ▶ to display the FAVORITE CH2 menu.



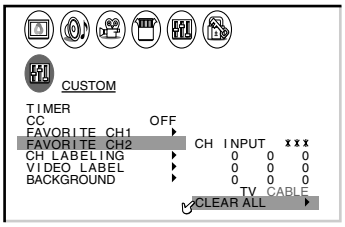
4. Press ▲▼◀▶ to highlight the channel you want to clear, and then press ENTER.
5. Repeat step 4 to clear another favorite channel.





To clear all favorite channels at once:

Press ▲ or ▼ to highlight CLEAR ALL in step 4 above, and then press ▶ or ◀.



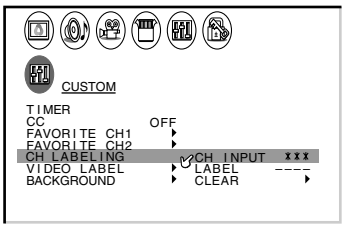
Labeling channels

Channel labels appear above the on-screen channel number display each time you turn on the TV, select a channel, or press RECALL. You can choose any four characters to identify a channel.

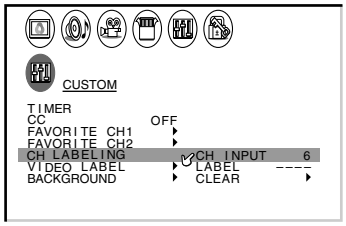
To create a channel label:

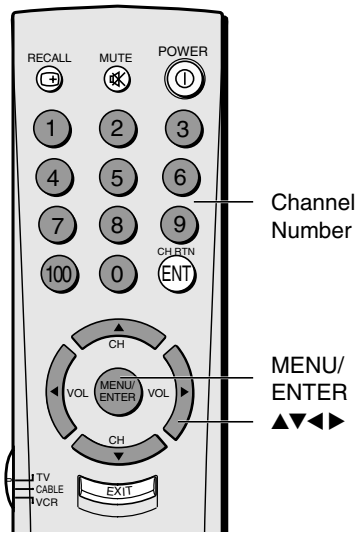
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ◀ or ▶ to display the CH LABELING menu.

   CH INPUT will be highlighted.

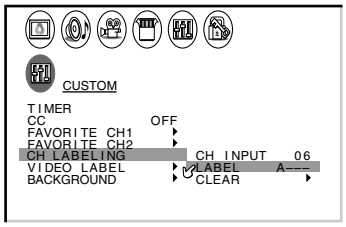


4. Press the Channel Number buttons to select the channel to label.





5. Press ▼ to highlight LABEL.
6. Repeatedly press ◀ or ▶ until the character you want appears in the space. Press ENTER.

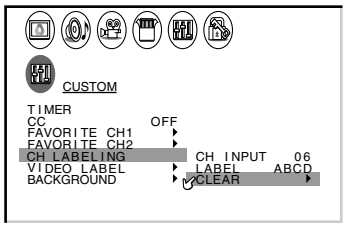


7. Repeat step 6 to enter the rest of the characters.

   For a blank space in the label name, choose an empty space from the list of characters or a dash will appear in that space.
8. Repeat steps 4–6 for other channels. You can assign labels to a maximum of 32 labels.

To erase a channel label:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ◀ or ▶ to display the CH LABELING menu.
4. Press ▼ to highlight CH INPUT, then select the channel label to clear with the Channel Number buttons.
5. Press ▼ to highlight CLEAR.



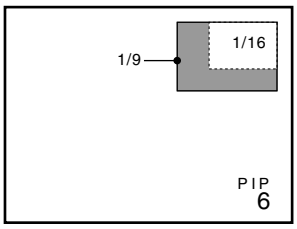
6. Press ◀ or ▶ to erase the channel label.
7. Repeat steps 4–6 to erase other channel labels.

Watching picture-in-picture (PIP)

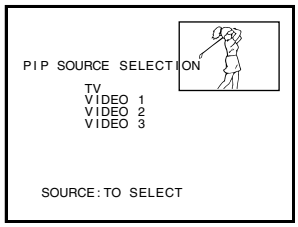
The picture-in-picture (PIP) feature allows you to watch two pictures at the same time. The smaller PIP picture comes from a TV broadcast or an external source, such as a VCR.

To display the PIP:

1. Make sure you have connected any external source equipment properly (see "Connecting your TV" on page 5).
2. Turn on the TV and select the program you want to watch.
3. Press PIP once to display a PIP window 1/9 the size of the screen will appear. Press PIP a second time to display a 1/16 size PIP window.

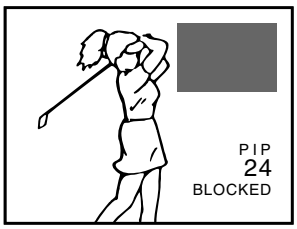


4. Repeatedly press SOURCE to select the PIP input source (TV, VIDEO 1, VIDEO 2, or VIDEO 3). The selected source will be displayed in purple. ColorStream cannot be selected.



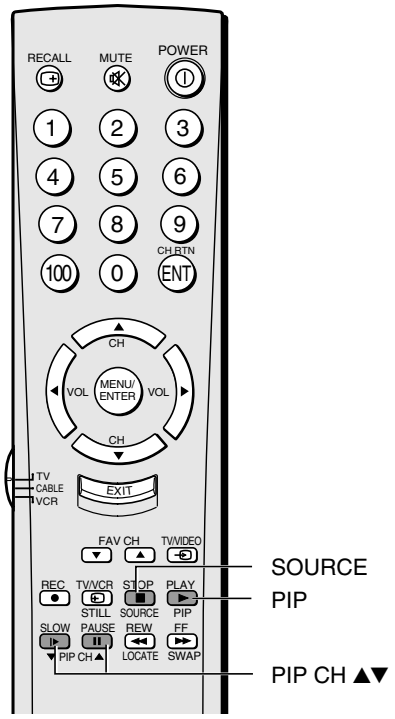
Press PIP CH ▲ or ▼ to change the PIP channel.

If the V-CHIP feature is active and you try to watch a TV program that exceeds the rating limits you set, the TV will enter the program lock mode (see "Using the LOCKS menu" on page 26).



To turn PIP off:

Press PIP once or twice, depending on which PIP window size you selected.

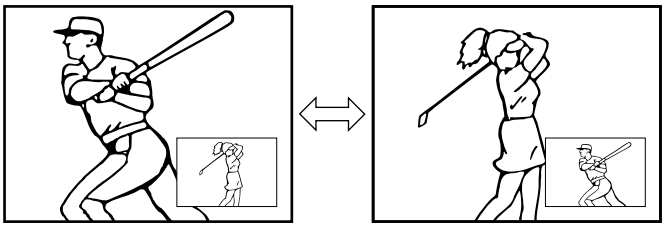


Note:

PIP cannot be turned on when the ColorStream input is being viewed.

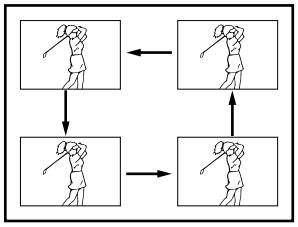
Switching the main and PIP pictures

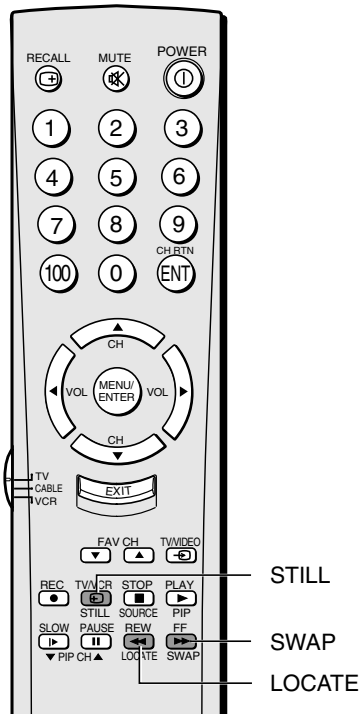
Press SWAP while you are using the PIP feature to switch the main and PIP pictures.



Changing the position of the PIP window

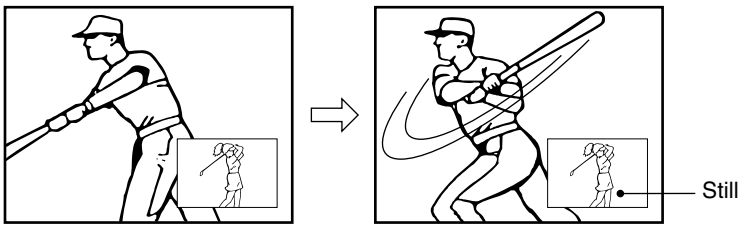
Repeatedly press LOCATE while you are watching the PIP. The display position of the PIP window will change in the following order:





Freezing the PIP picture

Press STILL while you are watching the PIP to freeze the picture. To restore the moving picture, press STILL again.

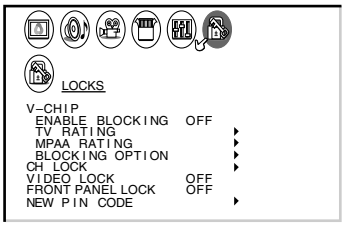


Using the LOCKS menu

The LOCKS menu includes the V-Chip, CH Lock, Video Lock, and New PIN Code functions. You can use these functions after entering the correct PIN code.

Entering the PIN code

1. Press MENU, and then press ◀ or ▶ until the LOCKS menu appears.



2. Press ▲ or ▼ to display the PIN code entering mode.

- Blocking reset status:

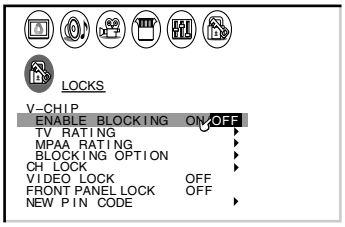
  Press the Number buttons (0–9) to set a new 4-digit PIN code, and then press ENTER.

- When the PIN code is already stored:

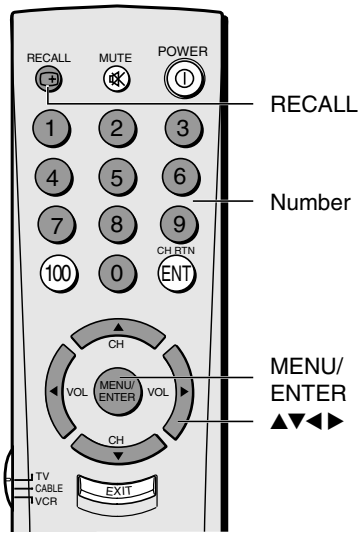
  Press the Number buttons (0–9) to enter the existing 4-digit PIN code, and then press ENTER.

If the wrong PIN code is entered, the message "Incorrect" will appear. Enter the code again, and then press ENTER.

If you cannot remember the PIN code, while in the PIN code entering mode, press RECALL four times within 5 seconds. The PIN code will be released (blocking reset status).

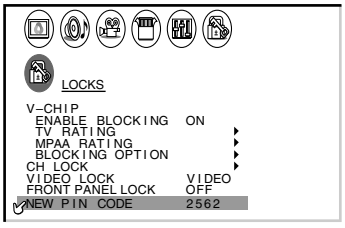


Continue to set each item following the steps on page 27.



Changing the PIN code

1. From the LOCKS menu, select NEW PIN CODE.
2. Press the Number buttons (0–9) to enter a 4-digit code. The numbers will replace the dashes in the display.



3. Press ENTER. The new PIN code is now active.

Using the V-CHIP menu

Some TV programs and movies include signals that classify the content of the program (violence, sex, dialog, language). The V-CHIP control feature in this TV detects the signals and blocks the programs according to your selections. To use this feature, perform the following setup.

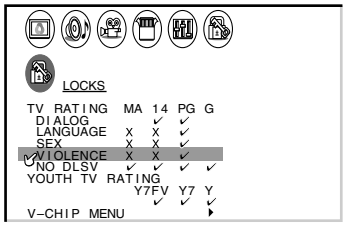
ENABLE BLOCKING

1. From the LOCKS menu, select ENABLE BLOCKING.
2. Press ◀ or ▶ to select ON (blocking enabled) or OFF (blocking disabled).

   Note: *The CH LOCK function is not affected by this selection.*

TV RATING (Independent rating system for broadcasters)

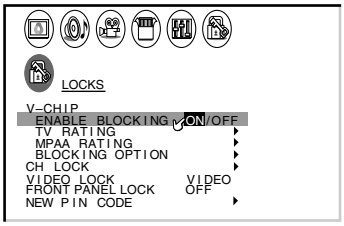
1. From the LOCKS menu, select TV RATING.
2. Press ◀ or ▶ to display the TV RATING menu.
3. Press ▼ or ▲ to select item.
4. Press ▶ to lock (display X).
   Press ◀ to unlock (display ✓).
5. Repeat steps 3 and 4 to set the next item.



The TV age-based ratings and content themes that can be locked are listed in the table below.

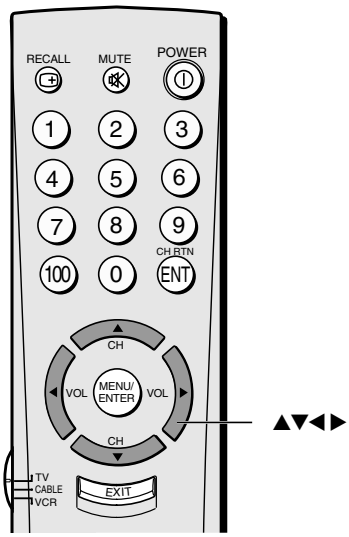
Ratings	Description and Content themes
MA	Mature Audience Only (This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.) **L) Crude or indecent language S) Explicit sexual activity V) Graphic violence**
14	Parents Strongly Cautioned (This program contains some material that many parents would find unsuitable for children under 14 years of age.) **D) Intensely suggestive dialog L) Strong coarse language S) Intense sexual situations V) Intense violence**
PG	Parental Guidance Suggested (This program contains material that parents may find unsuitable for younger children.) **D) Some suggestive dialog L) Infrequent coarse language S) Some sexual situations V) Moderate violence**
G	General Audience (Most parents would find this program suitable for all ages.)
Y7, Y7-FV	Directed to Older Children (This program is designed for children age 7 and above. Note: Programs in which fantasy violence may be more intense or more combative than other programs in this category are designated Y7-FV.)
Y	All Children (This program is designed to be appropriate for all children.)

LOCKS menu

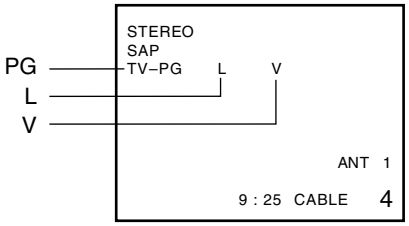


To select each item:

Press ▼ or ▲ .

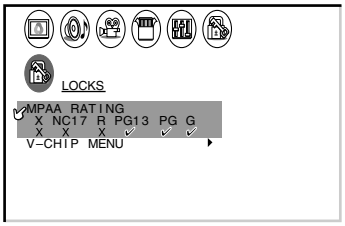


Press RECALL to display the rating of the current TV program.



MPAA RATING (Independent rating system for movies)

1. From the LOCKS menu, select MPAA RATING.
2. Press ◀ or ▶ to display the MPAA RATING menu, and then press ▼ or ▲ to highlight MPAA RATING.
3. Press ◀ or ▶ to display the MPAA RATING menu.



4. Press ▶ to lock ("X") or press ◀ to unlock ("✓").

The movie ratings that can be locked are as follows:

X : X-rated (For adults only)

NC17 : Not intended for anyone 17 and under

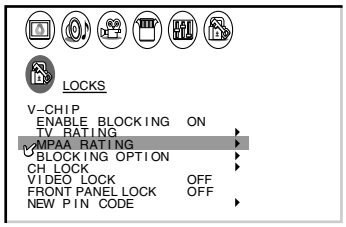
R : Restricted (Under 17 requires accompanying parent or adult guardian)

PG13 : Parents Strongly Cautioned (Some material may be inappropriate for children under 13)

PG : Parental Guidance Suggested (Some material may not be suitable for children)

G : General Audience (Appropriate for all ages)

LOCKS menu



To select each item:

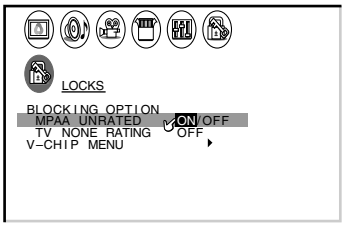
Press ▼ or ▲ .

BLOCKING OPTION

1. From the LOCKS menu, select BLOCKING OPTION.
2. Press ◀ or ▶ to display the BLOCKING OPTION menu, then press ▲ or ▼ to select an item, as follows:

MPAA UNRATED:

Press ◀ or ▶ to select ON (Lock) or OFF (Unlock) for unrated programs on MPAA rating system.

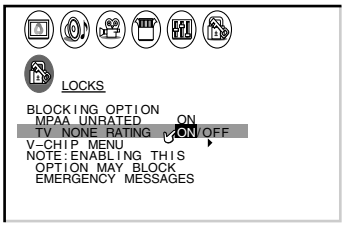


TV NONE RATING:

Press ◀ or ▶ to select ON (Lock) or OFF (Unlock) for programs rated NONE on TV PARENTAL GUIDELINES.

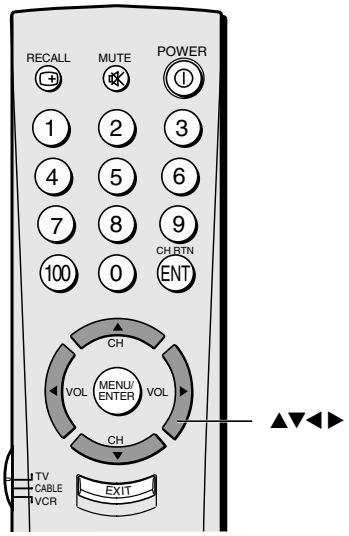
***Note**: Setting the TV NONE RATING to ON may block the broadcast of emergency messages.*

The PIP picture will not be blocked even if ON is selected.



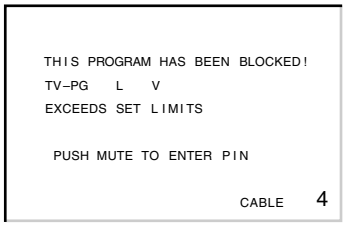
V-CHIP MENU:

Press ◀ or ▶ to return to the V-CHIP (LOCKS) menu.

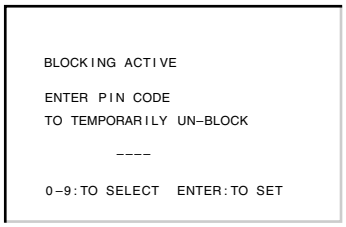


Unlocking programs temporarily

1. If you try to watch a TV program that exceeds the rating limits you set, the TV will enter into the program lock mode.



2. To temporarily unlock the program, press MUTE.
3. Press the Number button (0–9) to enter your 4-digit PIN code.

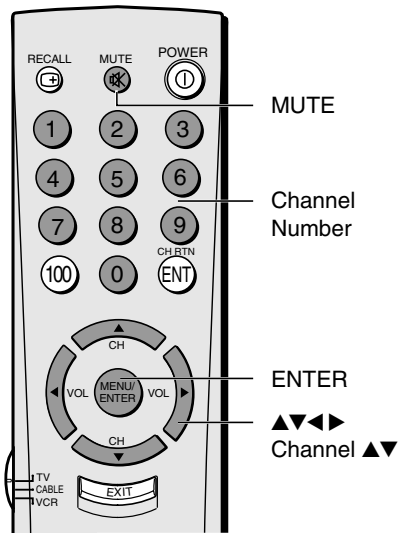


4. Press ENTER.

   If the PIN code is correct, the lock mode will be released and the normal picture will appear.

   All locking is disabled until the TV is turned off, and will be enabled when the TV is turned on again.

   If the wrong PIN code is entered, the message "Incorrect" appears. Enter the code again, and then press ENTER.



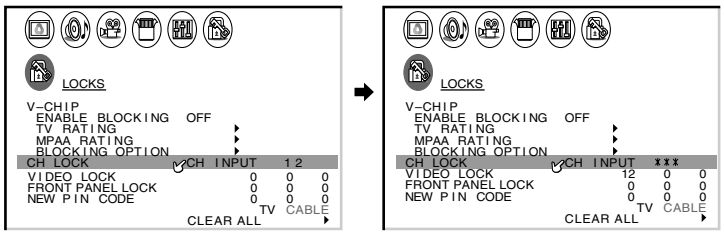
Locking channels

Use the CH LOCK feature to lock specific channels. The TV will not be able to tune locked channels until the setting is cleared.

You can lock a maximum of nine channels.

To lock channels:

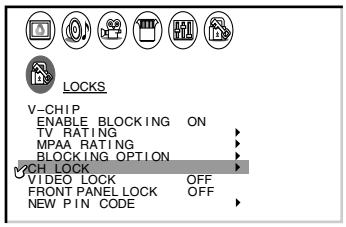
1. From the LOCKS menu, select CH LOCK.
2. Press ◀ or ▶ to display the CH LOCK menu. CH INPUT will be highlighted.
3. Press the Channel Number buttons to enter the channel you want to lock. (The current channel cannot be locked.)
4. Press ENTER.



5. Repeat steps 3 and 4 for other channels.

(Continued on next page)

LOCKS menu

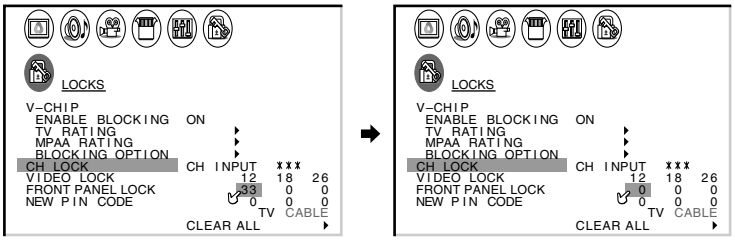


To select each item:

Press ▼ or ▲ .

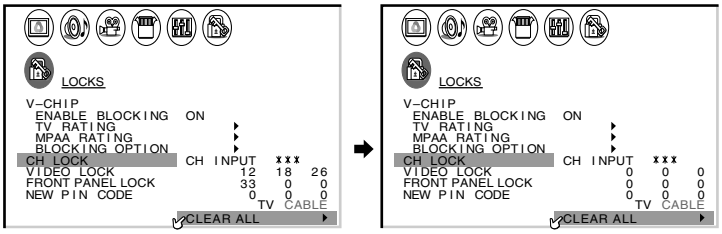
To unlock a channel:

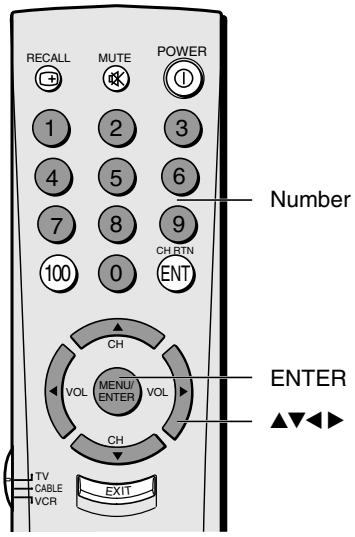
1. From the LOCKS menu, select CH LOCK.
2. Press ◀ or ▶ to display the CH LOCK menu.
3. Press ▲▼◀▶ to highlight the channel you want to unlock, and then press ENTER.
4. Repeat step 3 to unlock another channel.



To unlock all channels at once:

Press ▲ or ▼ to highlight CLEAR ALL, and then press ◀ or ▶.





Locking the video inputs

Use the VIDEO LOCK feature to block the video input sources (Video 1, Video 2, Video 3, and ColorStream) and channels 3 and 4. You will not be able to select the input sources using the TV/VIDEO button or Channel buttons unless you clear the setting.

To lock the video inputs:

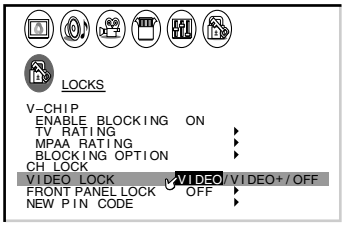
1. From the LOCKS menu, select VIDEO LOCK.
2. Press ◀ or ▶ to highlight the appropriate video lock mode:

   VIDEO: Locks Video 1, Video 2, Video 3, and ColorStream.

   VIDEO+: Locks Video 1, Video 2, Video 3, ColorStream, and channels 3 and 4. This option should be used if you use the antenna terminal to playback a video tape.

   Note: *Make sure the PIP is not on channel 3 or 4.*

   OFF: Unlocks all video inputs.



Locking the front panel buttons

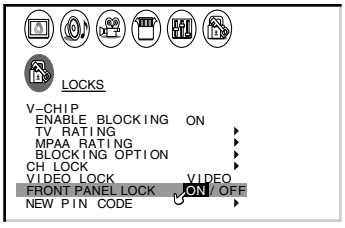
The TV front panel buttons can be locked to prevent their accidental use (by children, for example).

To lock the front panel buttons:

1. From the LOCKS menu, select FRONT PANEL LOCK.
2. Press ◀ or ▶ to highlight ON.

To unlock the front panel buttons:

Highlight OFF in step 2 above.



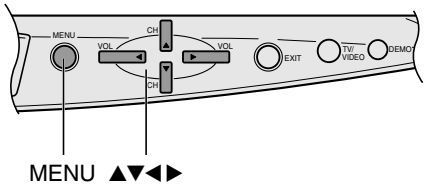
Adjusting the picture

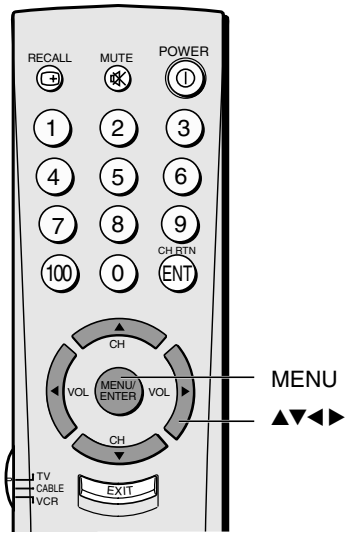
Selecting the picture mode

Select the desired picture type from four picture modes: Sports, Standard, Movie, and Preference.

Mode	Picture Quality
Sports	Bright and dynamic picture (factory setting)
Standard	Standard picture setting (factory setting)
Movie	Movie-like picture setting (factory setting)
Preference	Your personal preferences*

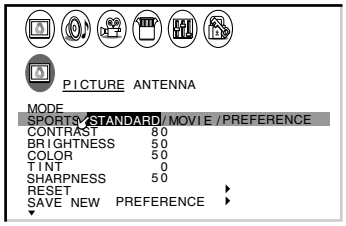
*(see "Saving your picture preferences" on page 32.)





To select the picture mode:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ to select MODE.
3. Press ◀ or ▶ to highlight the preferred mode.



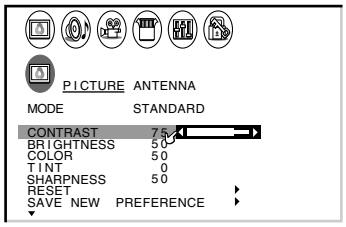
Adjusting the picture quality

You can adjust the picture quality to your personal preferences, including the contrast, brightness, color, tint, sharpness, flesh tone, noise reduction, and color temperature.

To adjust the picture quality:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ until the item you want to adjust is highlighted.
3. Press ◀ or ▶ to adjust the level.

Note: *To save the new picture quality settings, you must select SAVE NEW PREFERENCE (see page 32) before closing the Picture menu, or the TV will return to the previous picture mode.*



Selection	◀ Pressing ▶	
contrast	lower	higher
brightness	darker	lighter
color	paler	deeper
tint	reddish	greenish
sharpness	softer	sharper

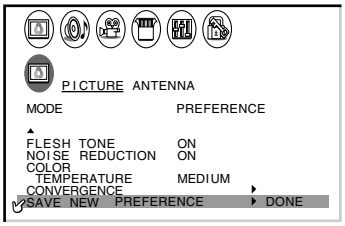
Note:
If you select one of the factory-set picture modes (Sports, Standard, or Movie) and then change a picture quality setting (for example, increase the contrast), the picture mode automatically changes to PREFERENCE in the Picture menu.

Saving your picture preferences

You can save the PICTURE qualities you adjusted (contrast, brightness, color, tint, and sharpness) in the Picture PREFERENCE mode.

To save your picture preferences:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight SAVE NEW PREFERENCE.
3. Press ◀ or ▶. The menu displays "DONE."



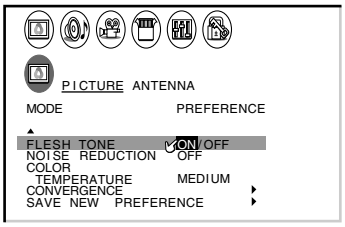
The mode automatically changes to PREFERENCE (see "Selecting the picture mode" on page 31).

Using the flesh tone feature

This feature displays natural flesh tones by correcting the tint.

To turn on the flesh tone feature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight FLESH TONE.
3. Press ◀ or ▶ to highlight ON.



To turn off the flesh tone feature:

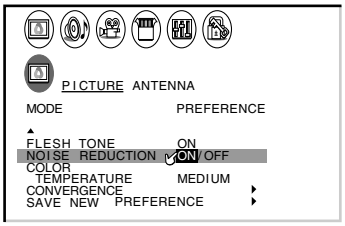
Highlight OFF in step 3 above.

Using the noise reduction feature

This feature allows you to reduce visible interference in your TV picture. This is useful when receiving a broadcast with a weak signal or playing back a video cassette or disk damaged by repeated use.

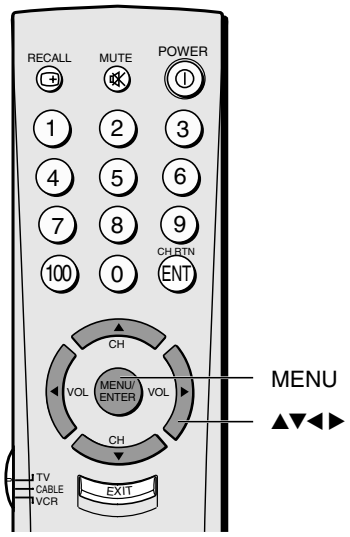
To turn on the noise reduction feature.

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight NOISE REDUCTION.
3. Press ◀ or ▶ to highlight ON.



To turn off the noise reduction feature:

Highlight OFF in step 3 above.



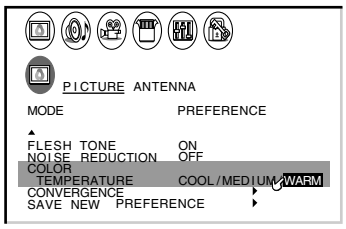
Selecting the color temperature

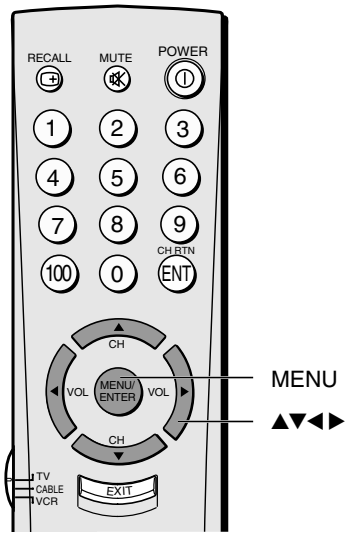
You can change the quality of the picture by selecting from three preset color temperatures: cool, medium, and warm.

Mode	Picture Quality
Cool	Blueish
Medium	Neutral
Warm	Reddish

To select the color temperature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight COLOR TEMPERATURE.
3. Press ◀ or ▶ to highlight the preferred mode.





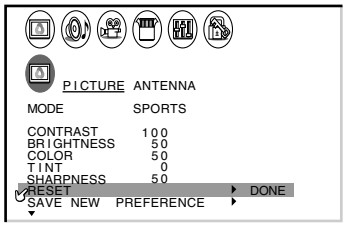
Resetting the picture adjustments

The RESET function resets the picture adjustments to the following factory settings:

Contrast ..... Max (100)
Brightness ..... Center (50)
Color ..... Center (50)
Tint ..... Center (0)
Sharpness ..... Center (50)
Color temperature ..... Cool
Noise reduction ..... Off
Picture mode ..... Sports

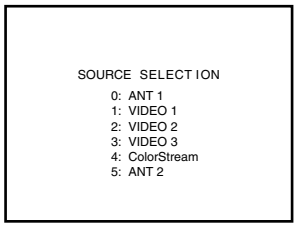
To reset the picture adjustments:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight RESET.
3. Press ◀ or ▶. The menu displays "DONE."

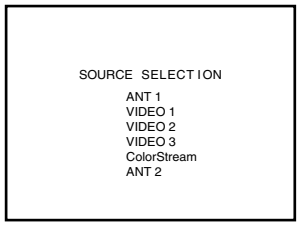


Selecting the video input source

You can use the TV/VIDEO button on the remote control or TV to view a signal coming from other devices connected to your TV, such as a VCR or DVD player. The current signal source displays in purple.



Pressing TV/VIDEO on the remote control displays this screen. To select, press 0–5.

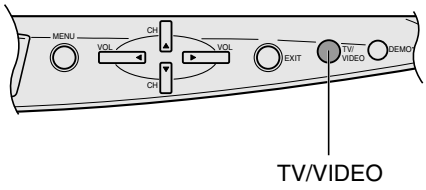


Pressing TV/VIDEO on the TV displays this screen. To select, press TV/VIDEO.

Note:

When ColorStream is selected, the video OUT signal will not have color.

To receive a color video OUT signal, use a regular or S-video IN jack instead of the ColorStream connections.



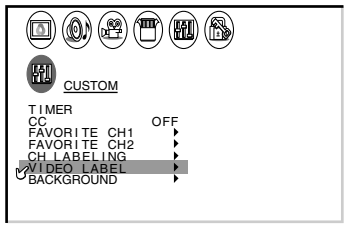
Labeling the video inputs

The Video Label feature allows you to label the input sources for your TV from the following preset list of labels:

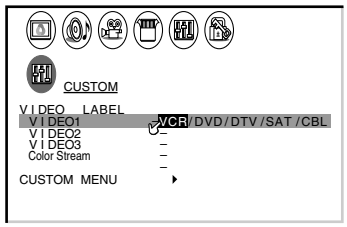
–	: The default label name
VCR	: Videocassette recorder
DVD	: DVD player
DTV	: Digital TV set-top box
SAT	: Satellite box
CBL	: Cable box

To label the video inputs:

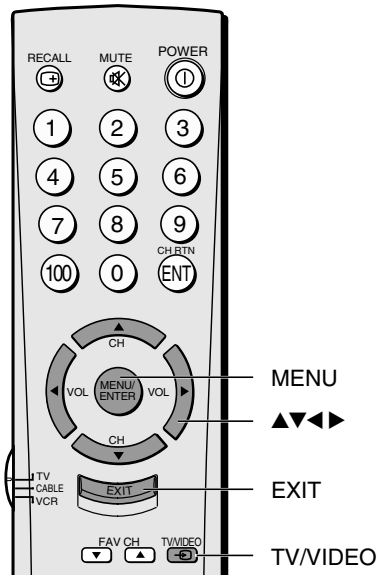
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight VIDEO LABEL.



3. Press ◀ or ▶ to display the VIDEO LABEL menu.
4. Press ▲ or ▼ to highlight the video source you want to label.
5. Press ◀ or ▶ to select the appropriate label for that input source.



6. Label the other video sources as desired. To return to the previous menu, press ▲ or ▼ to highlight CUSTOM MENU, and then press ◀ or ▶.
7. To exit the menu, press EXIT.



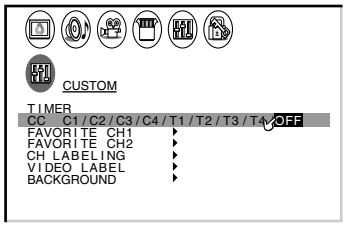
Using the closed caption feature

The closed caption feature has two options:

- Captions—An on-screen display of the dialogue, narration and sound effects of TV programs and videotapes that are closed captioned (usually designated as "CC").
- Text—An on-screen display of information not related to the current program, such as weather or stock data (when provided by individual stations).

To view captions or text:

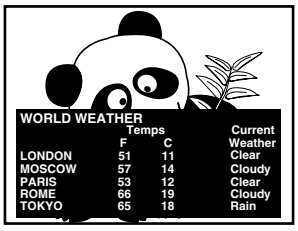
1. Tune the TV to the desired program.
2. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
3. Press ▼ or ▲ to highlight CC.



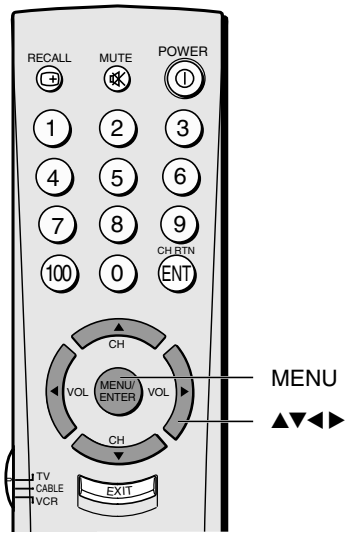
4. Press ◀ or ▶ to highlight the closed caption mode.

- To view captions, highlight C1, C2, C3, or C4 (C1 displays translation of the primary language in your area).
  Note: *If the program or video is not closed captioned, no captions will display on-screen.*

- To view text, select T1, T2, T3, or T4.
  Note: *If text is not available, a black rectangle may appear on-screen. If this happens, turn off the closed caption feature.*



- To turn off the closed caption feature, highlight OFF.



Note:

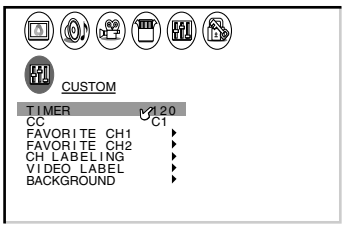
A closed caption signal may not be decoded in the following situations:

- *when a video tape has been dubbed*
- *when the signal reception is weak*
- *when the signal reception is nonstandard*

Setting the sleep timer

To set the sleep timer to turn off the TV automatically:

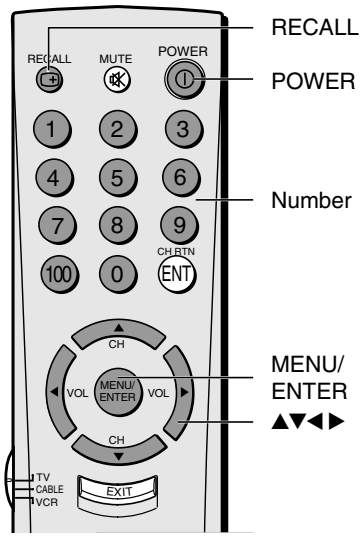
1. Press MENU, and then press ◀ or ▶ until CUSTOM menu appears.
2. Press ▼ or ▲ to highlight TIMER.
3. After the number position starts to blink, press the Number buttons (0–9) to enter the length of time until the TV turns off automatically (in 10-minute increments, to a maximum of 180).



4. Press ENTER to start the timer.

To cancel the sleep timer:

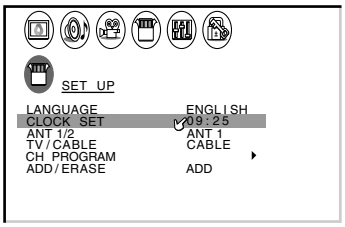
Set the number to 0 in step 3 above, or turn off the TV.



Setting the clock

To set the clock:

1. Press MENU, and then press ◀ or ▶ until SET UP menu appears.
2. Press ▲ or ▼ to highlight CLOCK SET.
3. After the number position starts to blink, press four Number buttons (0–9) to enter the correct time. The clock operates on a 12-hour cycle.



4. Press ENTER to start the clock.

To display the time on-screen:

Press RECALL.

Note:

If the power source for the TV is interrupted (that is, the power cord is unplugged or a power failure occurs), the clock must be reset.

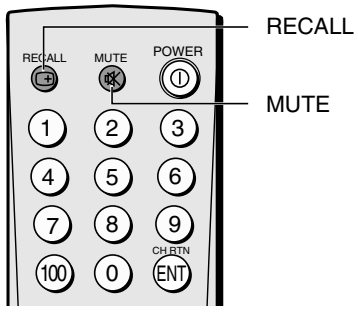
Adjusting the sound

Muting the sound

Press MUTE once to partially dim the sound (the screen displays "1/2 MUTE"). Press MUTE a second time to turn off the sound (the screen displays "MUTE"). Press MUTE a third time to restore normal sound. Every time MUTE is pressed, the mute mode changes in the following order:

→ Normal → 1/2 MUTE → MUTE ┐

When the sound is muted, the closed caption feature is automatically activated (if the closed caption mode is set to OFF). See "Using the closed caption feature" on page 35.

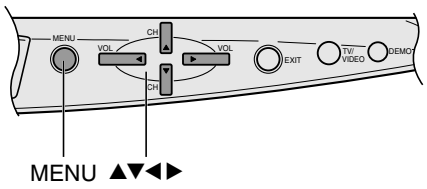


Selecting stereo/SAP broadcasts

Use the multi-channel TV sound (MTS) feature to hear high-fidelity stereo sound through the TV. MTS can also transmit a second audio program (SAP) containing a second language, music, or other audio information (when provided by individual stations).

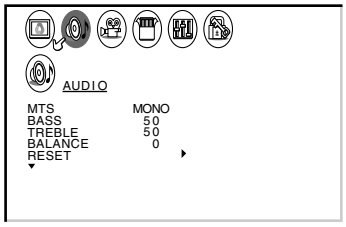
When the TV receives a stereo or SAP broadcast, the word STEREO or SAP appears on-screen every time the TV is turned on, the channel is changed, or RECALL is pressed.

The MTS feature is not available in VIDEO mode.

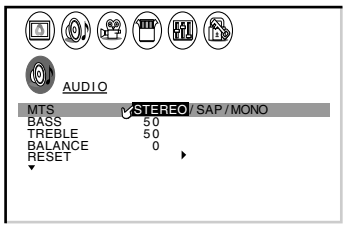


To listen to stereo sound:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.



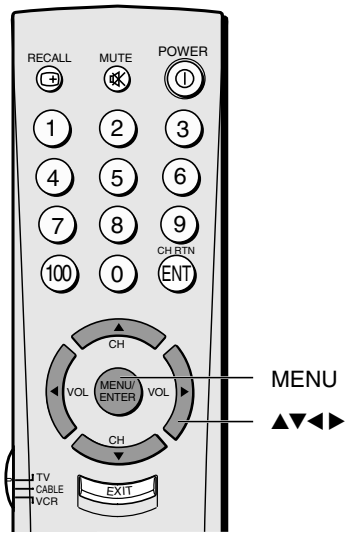
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight STEREO.



You can leave the TV in STEREO mode because it will automatically output the type of sound being broadcast (stereo or monaural).

If the stereo sound is noisy, select MONO to reduce the noise.

The word STEREO or SAP displays in yellow in the menu when the TV receives the signal.



To listen to a second audio program (if available):

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight SAP (see notes at right).

Note:

A second audio program (SAP) can be heard only on those TV stations that offer it. For example, a station might broadcast music as a second audio program. If you have SAP on, you will see the current program but hear music instead of the program's normal audio.

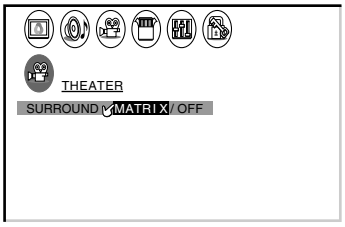
However, if the TV is in SAP mode but the current station is not broadcasting a second audio program, you will see a picture but may not hear any sound. If this happens, put the TV in STEREO mode.

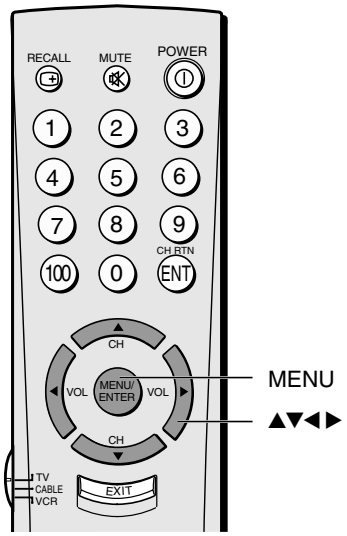
Using the surround sound feature

The surround sound feature expands the audio listening field wider and deeper to create exceptional sound quality from the TV's speakers. The feature uses stereo signals from a TV broadcast or video input.

To turn on the surround sound feature:

1. Select the STEREO mode (see "Selecting stereo/SAP broadcasts" on page 37).
2. Press MENU, and then press ◀ or ▶ until the THEATER menu appears.
3. Press ▲ or ▼ to highlight SURROUND.
4. Press ◀ or ▶ to highlight MATRIX.





To turn off the surround sound feature:

Highlight OFF in step 4 above.

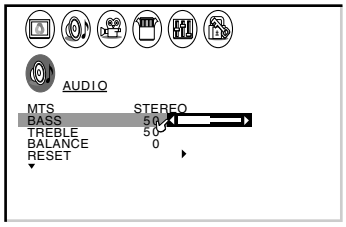
In general, you can leave the TV in MATRIX mode because it will automatically produce surround stereo or monaural sound, depending on the broadcast type.

Adjusting the sound quality

You can change the quality of the TV's sound by adjusting the bass, treble, and balance.

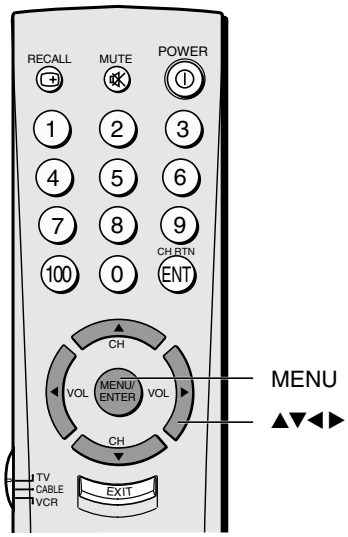
To adjust the sound quality:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight the item to adjust.



3. Press ◀ or ▶ to adjust the level.

- ◀ makes the sound quality weaker or decreases the balance in the right channel, depending on the item selected.
- ▶ makes the sound quality stronger or decreases the balance in the left channel, depending on the item selected.



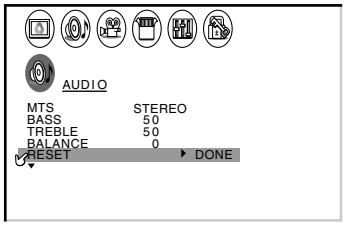
Resetting your audio adjustments

The RESET function resets the audio adjustments to the following factory settings:

Bass ..... Center (50)
Treble ..... Center (50)
Balance ..... Center (0)

To reset the audio adjustments:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight RESET.
3. Press ◀ or ▶. The menu displays "DONE."

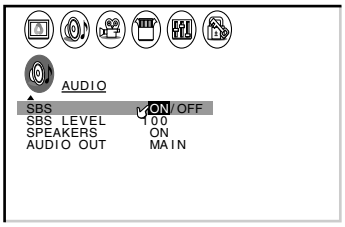


Using the Sub-Bass System (SBS)

The Sub-Bass System enhances bass performance, even when the volume is low.

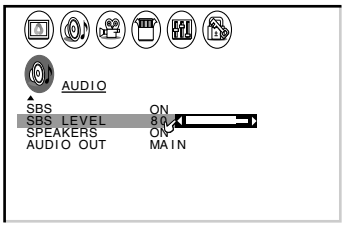
To turn on the SBS:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight SBS.
3. Press ◀ or ▶ to highlight ON.



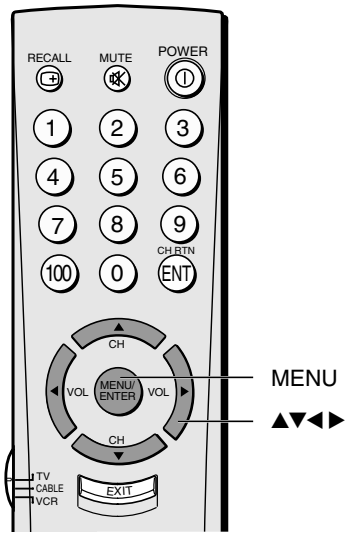
To adjust the SBS level:

4. Press ▲ or ▼ to highlight SBS LEVEL.
5. Press ◀ or ▶ to adjust the SBS level.



To turn off the Sub-Bass System:

Highlight OFF in step 3 above.

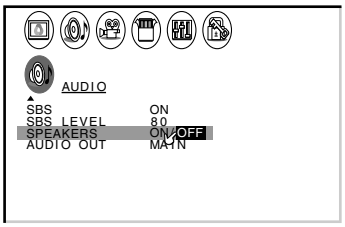


Turning off the built-in speakers

Use this feature to turn off the TV speakers when using an audio system (see page 10).

To turn off the built-in speakers:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight SPEAKERS.
3. Press ◀ or ▶ to highlight OFF.



To turn on the built-in speakers:

Highlight ON in step 3 above.

Note:

Make sure the audio amplifier volume control is set to a moderate listening level.

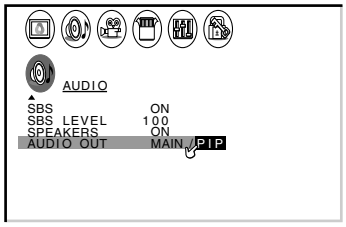
Selecting the Audio OUT sound

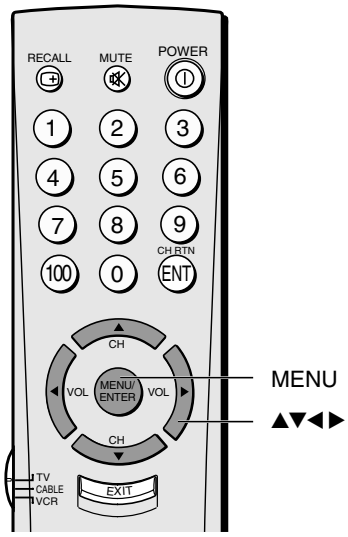
This feature allows you to select the sound source (MAIN or PIP) that is output from the Audio OUT jacks.

This is useful when amplifying or recording the PIP sound with external equipment while hearing the sound of the main picture through the built-in speakers.

To select the Audio OUT sound:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight AUDIO OUT.
3. Press ◀ or ▶ to select MAIN or PIP.



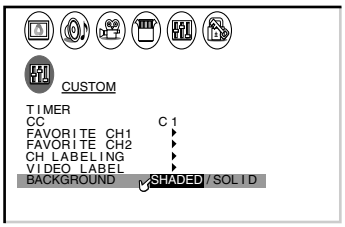


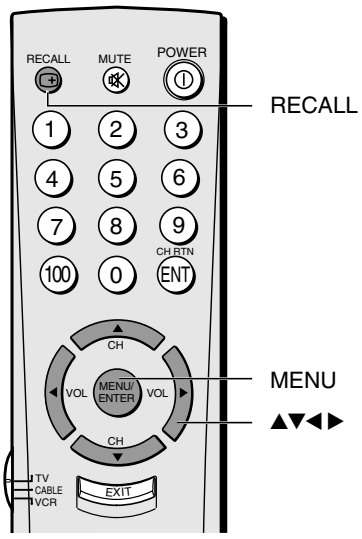
Selecting the background of the menu display

You can change the background of the menu display by selecting from two preset types: shaded and solid (gray).

To select the background:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight BACKGROUND.
3. Press ◀ or ▶ to select SHADED or SOLID.

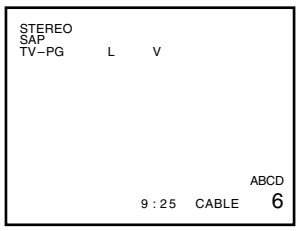




Displaying on-screen information

Press RECALL to display the following information on-screen:

- Channel number or video mode selected
- Time (if set)
- Channel label (if set)
- Stereo or SAP audio status
- V-CHIP rating status



Viewing the demonstration mode

The demonstration mode automatically displays a variety of the TV's on-screen menus and special features. This function is provided for demonstration purposes only.

To start the demonstration mode:

Press DEMO on the TV front panel.

To stop the demonstration mode:

Press DEMO, RECALL, EXIT, or POWER.

Understanding the auto power off feature

The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This feature does not work in VIDEO mode.

Understanding the last mode memory feature

If the power is cut off while the TV is on, the last mode memory feature will turn on the TV automatically when the power is resupplied.

If the power is going to be off for a long time and you are going to be away from the TV, unplug the power cord to prevent the TV from turning on in your absence.

Appendix

Specifications

Television System	NTSC standard
Channel Coverage	VHF: 2 through 13 UHF: 14 through 69 Cable TV: Mid band (A-8 through A-1, A through I) Super band (J through W) Hyper band (AA through ZZ, AAA, BBB) Ultra band (65 through 94, 100 through 125)
Power Source	120 V AC, 60 Hz
Power Consumption	132 W (average)
Audio Power	15 W + 15 W
Speaker Type	Two 6-1/4 inches (16 cm) round
Video/Audio Terminals	S-VIDEO INPUT Y-INPUT: 1 V(p-p), 75 ohm, negative sync. C-INPUT: 0.286 V(p-p) (burst signal), 75 ohm VIDEO/AUDIO INPUT VIDEO: 1 V(p-p), 75 ohm, negative sync. AUDIO: 150 mV(rms) (30% modulation equivalent, 47 kohm) ColorStream™ (component video) INPUT Y-INPUT: 1V(p-p), 75 ohm CR-INPUT: 0.7 V(p-p), 75 ohm CB-INPUT: 0.7 V(p-p), 75 ohm AUDIO: 150 mV(rms), 47 kohm VIDEO/AUDIO OUTPUT VIDEO: 1 V(p-p), 75 ohm, negative sync. AUDIO: 150 mV(rms) (30% modulation equivalent, 4.7 kohm) VARIABLE AUDIO OUTPUT 0–300 mV(rms) (30% modulation equivalent, 4.7 kohm)
Dimensions	Width : 42-1/4 inches (1,073 mm) Height : 50-5/8 inches (1,284 mm) Depth : 20-13/16 inches (529 mm)
Mass	217 lbs (98.6 kg)
Supplied Accessories	Remote Control with 2 size “AA” batteries

Design and specifications are subject to change without notice.

Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the problem and some solutions.

Problem	Solution
TV will not turn on	• Make sure the power cord is plugged in, and then press POWER. • The remote control batteries may be dead. Replace the batteries.
No picture, no sound	• Check the antenna/cable connections.
No sound, picture OK	• The sound may be muted. Press VOLUME. • The station may have broadcast difficulties. Try another channel. • Check that the SPEAKERS function in the AUDIO menu is properly set.
Poor sound, picture OK	• The station may have broadcast difficulties. Try another channel.
Poor picture, sound OK	• Check the antenna connections. • The station may have broadcast difficulties. Try another channel. • Adjust the PICTURE menu.
Poor reception of broadcast channels	• The station may have broadcast difficulties. Try another channel. • Check the antenna connections. • If you are using a VCR, make sure the TV/VCR button is set correctly.
Cannot receive above channel 13	• Make sure TV/CABLE is set to TV mode.
Black box appears on the screen	• Closed captioning may be on. Set the closed caption mode to OFF.
Unable to select a certain channel	• The channel may be locked with the CH LOCK feature, or erased with the ADD/ERASE feature.
Multiple images	• The station may have broadcast difficulties. Try another channel. • Antenna reception may be poor. Use a highly directional outdoor antenna.
Poor color or no color	• The station may have broadcast difficulties. Try another channel. • Adjust the TINT and/or COLOR in the PICTURE menu.
No stereo or SAP sound from a known MTS broadcast	• Make sure the MTS feature is set properly.
The remote control does not operate	• Make sure the TV/CABLE/VCR switch is set properly. • Remove all obstructions between the remote control and TV. • The remote control batteries may be dead. Replace the batteries.

Limited United States Warranty

Toshiba America Consumer Products, Inc. ("TACP") and Toshiba Hawaii Inc. ("THI") make the following limited warranties. These limited warranties extend to the original consumer purchaser or any person receiving this set as a gift from the original consumer purchaser and to no other purchaser or transferee.

Limited One (1) Year Warranty

TACP and THI warrant this product and its parts against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. During this period, TACP and THI will repair or replace a defective part, at their option, with a new or refurbished part, without charge to you. TACP/THI Authorized Service Station personnel will come to your home when warranty service is required. Depending on the type of repair required, the service will either be performed in your home or the set will be taken to the TACP/THI authorized service station for repair and returned to your home at no cost to you.

Limited Two (2) Year Warranty of Picture Tube

TACP and THI further warrant the picture tube in this product against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. During this period, TACP and THI will repair or replace a defective picture tube at their option, with a new or refurbished picture tube, without charge to you, except that if a defective picture tube is replaced after one (1) year from the date of the original retail purchase, you pay labor charges involved in the replacement.

Rental Units

The warranty for rental units begins with the first rental or thirty (30) days from the date of shipment to the rental firm, whichever comes first.

Commercial Units

Products sold and used for commercial use have a limited ninety (90) day warranty for all parts, labor and picture tube.

Owner's Manual and Demographic Card

You should read this owner's manual thoroughly before operating this product. You should complete and mail the enclosed Demographic card within ten days after you., or the person who has given you this product as a gift, purchased this product. This is one way to enable TACP/THI to provide you with better customer service and improved products. Failure to return the Demographic card will not affect your rights under this warranty.

Your Responsibility

The above warranties are subject to the following conditions;

(1) You must retain your bill of sale or provide other proof of purchase.

(2) All warranty servicing of this product must be made by an Authorized TACP/THI Service Station.

(3) These warranties are effective only if the product is purchased and operated in the U.S.A. or Puerto Rico.

(4) Labor service charges for set installation, set up, adjustment of customer controls and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.

(5) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any product or parts which have been lost or discarded by you or to damage to products or parts caused by misuse, accident, damage caused by Acts of God, such as lightning or fluctuations in electric power, improper installation, improper maintenance or use in violation of instructions furnished by us; or to units which have been modified or had the serial number removed, altered, defaced or rendered illegible.

How to Obtain Warranty Service

If after following all of the operating instructions in this manual and checking the "Troubleshooting" section, you find that service is needed:

(1) Call the TACP toll-free number 1-800-631-3811 to find the nearest TOSHIBA Authorized Service Station. In Hawaii, contact Toshiba Hawaii, Inc. 327 Kamakee Street, Honolulu, Hawaii 96814 (808) 591-9281

(2) Present your bill of sale or other proof to the Authorized Service Station. "Authorized TACP/THI service station personnel will come to your home when warranty service is required. Depending on the type of repair required, the service will either be performed in your home or the set will be taken to the TACP/THI Authorized service station for repair and returned to your home at no cost to you."

For additional information, visit our web site:

www.toshiba.com

All warranties implied by state law, including the implied warranties of merchantability and fitness for a particular purpose, are expressly limited to the duration of the limited warranties set forth above. With the exception of any warranties implied by state law as hereby limited, the foregoing warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of manufacturer or seller with respect to the repair or replacement of any parts. In no event shall TACP or THI be liable for consequential or incidental damages.

No person, agent, distributor, dealer or company is authorized to change, modify or extend the terms of these warranties in any manner whatsoever. The time within which action must be commenced to enforce any obligation of TACP or THI arising under this warranty or under any state, or law of the United States or any state thereof, is hereby limited to 90 days from the date you discover or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Some states do not allow limitation on how long an implied warranty lasts, when an action may be brought, or the exclusion or limitation of incidental or consequential damages, so the above provisions may not apply to you.

ATTENTION CANADIAN CONSUMERS:

Canadian consumers are requested to complete the special Canadian "Warranty Registration Form" enclosed, and forward this completed form with a copy of bill of sale to TOSHIBA OF CANADA to "Register and Validate" their warranty.

Products purchased in the U.S.A. and used in Canada are not covered by these warranties.

Products Purchased in Canada and used in the U.S.A. are not covered by these warranties.

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